#### Supply List for School Year 2018-2019 Grade 3-18 (Ms. Goff)

#### 6 Marble Notebooks

- 1 for each of the following subjects:

Math, Science, Reading, Social Studies, Writing, and Spanish

Pack of Loose Leaf

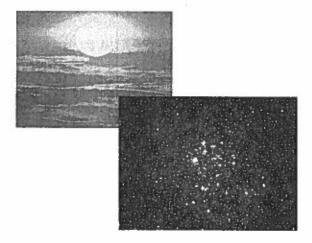
- 4 Sharpened Pencils with Eraser (Everyday)
- 2 Paper Towels
- 2 Boxes Kleenex
- 2 Bottles of Hand Sanitizer (10 fl oz)
- 1 Box Resealable bags (gal capacity)
- 2 Pocket Folders

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| A STATE OF THE STA | SUMMER PACKET FOR  |  |
| P  |  |  |
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| P  | READING, WRITING,  | PA .   |
| S. F.  |  | EV FA  |
| S. W.  | - A A 4400. A A A 3444 5 3   | N. Committee   |
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| EN M   | NAME.  | S. M.  |
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|  | NAME:DATE:   |  |
| at I   |  | AC.A.  |

All and a second



Objective Concepts (gravity, climate, solar system, hydrogen, helium, elements, ultraviolet rays, cluster, galaxy, Milky Way Galaxy); Sight words (surface, core, dangerous, causes, amount, glowing, tiny, twinkling)

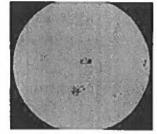


| Vocabulary     |           |  |  |
|----------------|-----------|--|--|
| surface amount |           |  |  |
| core           | glowing   |  |  |
| dangerous      | tiny      |  |  |
| causes         | twinkling |  |  |

#### The Sun and the Stars

By: Sue Peterson

Scientists know many things about the Sun. They know how old it is. The Sun is more than 41/2 billion years old. That would be too many candles to put on a birthday cake!



They also know the Sun's size. The Sun may seem small, but that is because it is so far away. It is about 93 million miles (150 million kilometers) away from the

Earth. The Sun is so large that the diameter of the Sun is

moons, asteroid belt, comets, meteors, and other objects.

The Earth and other planets revolve around the Sun.

The Sun is very important. Without it, there would be only darkness and our planet would be very cold and be without liquid water. Our planet would also be without people, animals, and plants because these things need sunlight and water to live.

The Sun also gives out <u>dangerous</u> ultraviolet light which <u>causes</u> sunburn and may cause cancer. That is why you need to be careful of the Sun and wear sunscreen and clothing to protect yourself from its rays.

Scientists have learned many things about the Sun.

They study the Sun using special tools or instruments such as telescopes. One thing they do is to look at the <u>amount</u> of light from the Sun and the effect of the Sun's light on the Earth's climate.

The Sun is actually a star. It is the closest star to the Earth. Scientists also study other stars, huge balls of glowing gas in the sky. There are over 200 billion stars in

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#### **Practice**

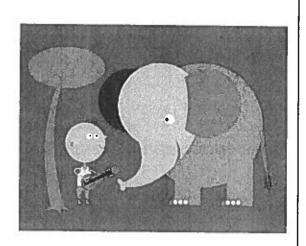
#### Language Work

| Α. | Fill in the bla          | nk and spell.           |                     |
|----|--------------------------|-------------------------|---------------------|
|    | s <u>ur</u> fac <u>e</u> | s fac                   |                     |
|    | c <u>or</u> e            | С е                     |                     |
|    | c <u>au</u> ses          | c s e s                 |                     |
|    | am <u>ou</u> nt          | a m n t                 |                     |
|    | tiny                     | t n                     |                     |
| B. |                          | rd in a sentence. Under | line the word used. |
|    | glowing                  |                         |                     |
|    | twinkling                |                         |                     |

| <ul> <li>3. What does the text say about the size of stars?</li> <li>a. They are all the same size.</li> <li>b. They are all small and you can see them twinkle.</li> <li>c. Some stars are larger than the Sun and others are smaller than the Earth.</li> <li>d. They are all smaller than the Sun.</li> </ul> |
|--|
| <u>Definitions</u> (Write the meaning of each word as it is used in the text   |
| 1. surface   |
| 2. glowing   |
| 3. twinkling   |
| Extended Response (Answer in complete sentences.)  |
| Why do you think the author included a section on the Sun and another section on stars in the same text?   |
|  |
|  |
|  |
|  |



Objective sight words (device, signal, religious ceremony, composed, performed, melody, historians, classify, range of music); concepts (classification and types of musical instruments, culture, civilization, ritual, entertainment, non-durable, organology)



| Vocabulary            |                   |  |  |
|-----------------------|-------------------|--|--|
| device                | melody            |  |  |
| signal                | historians        |  |  |
| religious<br>ceremony | classify          |  |  |
| composed              | range of<br>music |  |  |
| performed             |                   |  |  |

#### Musical Instruments to Play

By: Sue Peterson

A musical instrument is a <u>device</u> created to make musical sounds. Anything that makes a sound can be used as a musical instrument.

The history of musical instruments goes back to the beginning of culture. People first used instruments as ritual: a hunter might use a trumpet to <u>signal</u> a successful hunt; a drum might be used in a <u>religious ceremony</u>.

produce sounds. The academic study of musical instruments is called organology.

Woodwinds and brass (sometimes called the "wind" instruments), string, percussion, electric, and keyboard are types of instruments grouped according to how they are made and the range of music and sounds they play.

Woodwind and brass instruments include the trumpet, clarinet, flute, oboe, trombone, tuba, and harmonica.

Stringed instruments include the banjo, guitar, harp, violin, and viola. Percussion instruments include the cymbal, chime, timpani, drum, and tambourine. Electronic instruments are the keyboard and the synthesizer.

Keyboard instruments include the accordion, organ, and piano.

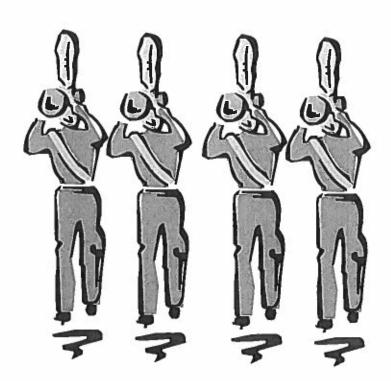
Maybe you will play an instrument someday. Will it be a woodwind or brass, stringed, percussion, electronic or a keyboard instrument?

| C. Matching. Draw a line to connect which musical instrum<br>belong to the categories listed in the story. |   |      |   |
|--|---|------|---|
| 1.   | woodwind and brass  | a)   | banjo, guitar, harp                               |
| 2.   | stringed  | - b) | trumpet, clarinet, flute                          |
| 3.   | percussion  | c)   | keyboard, synthesizer                             |
| 4.   | keyboard  | d)   | accordion, organ, piano                           |
| 5.   | electronic  | e)   | cymbal, chime, drum                               |
| and she  | " that make a short "i" sound follow other word that has the "ic" letters ort i followed by the k sound).             | to r | make the "ik" sound (a ged to "i" when adding the |
| his  | fix "an", which means "of". So a "h<br>tory", an "Italian" is someone "of It<br>it has the "an" suffix. Write what th | aly" | , etc. Write another word                         |
| -  |   |      |   |
| 7  |   |      | · ·   |

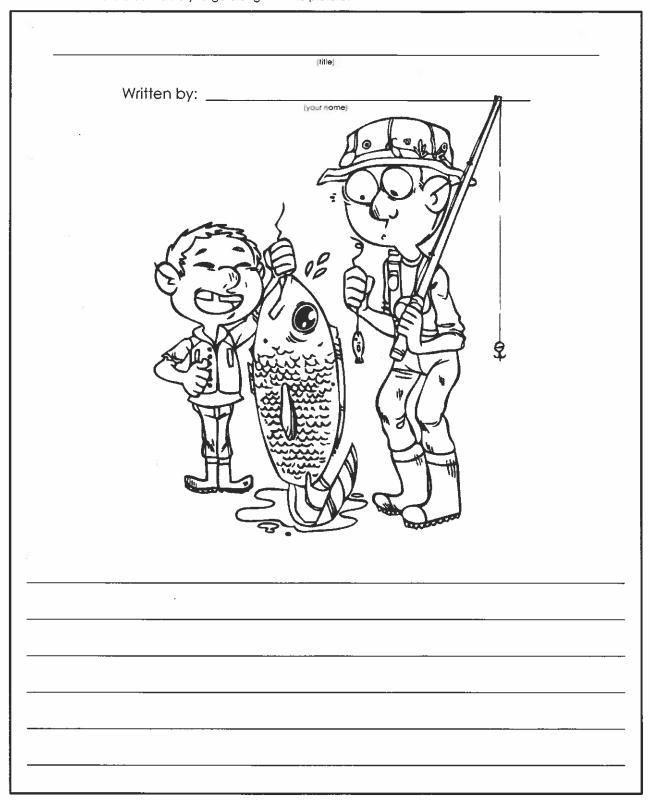
#### <u>Multiple-Choice Questions</u> (Put an X in front of the correct answer.)

| 1. | The text mentions that musical instruments are made out of all of these materials except  a. animal skin b. bone c. rock d. wood  |
|----|---|
| 2. | According to the text, what is the most common way of grouping instruments?  a. by range of music played b. what they are made out of c. how they look d. how they produce sounds |
| 3. | According to the text, what was the earliest reported instrument?  a. a simple piano b. a simple flute c. a simple guitar d. a simple harp  |
| De | efinitions (Write the meaning of each word as it is used in the text.)  |
| 1. | device  |
| 2. | signal  |
| 3. | composed  |
|    |   |

| f you could play a | ny instrume | nt, what w | ould it be? | Whv? |
|--------------------|-------------|------------|-------------|------|
|                    |             |            |             | ,    |
| ·                  |             |            |             |      |
|                    |             |            |             |      |
|                    |             |            |             |      |
|                    |             | -          |             | · ·  |
| -                  |             | ·          |             |      |



**Directions:** Write a creative story to go along with the picture.



Prerequisite Skills Inventory for Grade 3 Page 1

#### Write the correct answer.

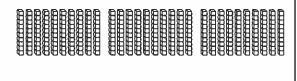
**1.** Amy has sixty-three stamps in her collection. Write sixty-three another way.

\_\_\_\_ tens \_\_\_ ones

2. Harry counts by tens. Write the number that Harry will say next.

150, 160, 170, 180, \_\_\_\_\_

 Mr. Jenkins uses blocks to model a number. Write how many hundreds his model shows.



**4.** There are 257 sports books in the school library. Write the value of the digit 5 in the number 257.

5. Aiesha wrote this number pattern. What two numbers are next in the pattern?

168, 268, 368, 468, \_\_\_\_, \_\_\_

6. Sam sees 5 red balloons, 8 blue balloons, and 2 yellow balloons. Write the sum to name how many balloons he sees in all.

balloons

7. Jeremiah uses related facts to solve a subtraction problem. Write the sum and difference.

GO ON

- **8.** Amara puts 4 blocks in each tower. How many blocks are in 3 towers?
- Tens Ones

  5 7
  + 2 6

11. What is the sum?

- 9. There are 34 girls and 29 boys in the school play. How many girls and boys are in the school play?
- **12.** Mr. Stapp baked 24 blueberry muffins and 36 banana-nut muffins. Write a number sentence that tells how many muffins he baked.

**10.** Juan adds 35 + 16.

| Tens | Ones  |
|------|-------|
|      | 00000 |
|      | 00000 |

Draw to show the regrouping. Write how many tens and ones are in the sum 35 + 16.

| tens | ones |
|------|------|
|      |      |

**13.** Finn subtracts 16 from 42.

| Tens | Ones |
|------|------|
|      | 00   |
|      |      |

Draw to show the regrouping. Write how many tens and ones are in the difference 42 – 16.

| tens  | ones      |
|-------|-----------|
| 40110 | <br>01100 |

GO ON

14. What is the difference?

|   | Tens | Ones |
|---|------|------|
|   | 6 3  | 2    |
| _ | 3    | 5    |
|   |      |      |

15. There were some grapes in a bowl. Jess ate 14 grapes. Now there are 29 grapes in the bowl. How many grapes were in the bowl to start?

Write a number sentence for the problem. Use a ■ for the unknown number. Then solve.

|  | gi | ra | p | es |
|--|----|----|---|----|

16. Ty scored 12 points in the basketball game. Kevin scored 4 more points than Ty. How many points did Ty and Kevin score in all?

| poi     | nts  |
|---------|------|
| <br>poi | 1116 |

17. There are 725 people sitting in the airport waiting area. There are another 119 people standing in the airport waiting area. How many people in all are in the airport waiting area?

| peo | ple |
|-----|-----|
|     |     |

**18.** On Saturday 452 people attend a boat show. 379 people attend the show on Sunday. How many people attend the show on both days?

| <br>peo | nli | _ |
|---------|-----|---|
| hca     | יוע | u |

19. Crosby had 213 trading cards in his collection. He gave 117 cards to his younger brother. How many trading cards does Crosby have left?

trading cards

20. A theater has 405 seats. The theater has sold 356 tickets for seats to a play on Friday. How many empty seats will there be at the play?

seats



Houghton Mifflin Harcourt Publishing Company

**21.** Dominic gets on the bus at the time shown on the clock. What time does Dominic get on the bus?



22. Debbie arrives home from school at the time shown on the clock. What time does Debbie arrive home from school?



**23.** Anna Lucia went to bed at the time shown on the clock.



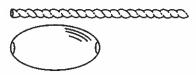
What time did Anna Lucia go to bed? Circle the correct time.

9:15 а.м.

C Houghton Mifflin Harcourt Publishing Company

9:15 р.м.

24. Peter has some beads that are each 1 inch long. He wants to put them on this string.



Circle the best estimate for the length of the string.

2 inches

4 inches

6 inches

**25.** Use an inch ruler. What is the length of the pin to the nearest inch?



**26.** Aubree started getting ready for school at the time shown on the clock.



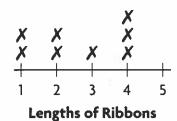
What time did Aubree start getting ready for school? Circle the correct time.

7:10 A.M.

7:10 p.m.

GO ON

**27.** Hannah measured ribbon pieces to the nearest inch. She recorded some of the data in the line plot.



Two more pieces each measured 5 inches. How can she show this in the line plot?

**28.** Use a centimeter ruler. What is the length of the worm to the nearest centimeter?



29. Ella made the tally chart shown.

**Favorite Fruit** 

| T dronto Trait |        |  |  |  |  |  |
|----------------|--------|--|--|--|--|--|
| Fruit          | Tally  |  |  |  |  |  |
| Bananas        | 111111 |  |  |  |  |  |
| Apples         | III    |  |  |  |  |  |
| Oranges        | Ш      |  |  |  |  |  |
| Peaches        | 1      |  |  |  |  |  |

Which fruit did the most classmates choose?

**30.** The picture graph shows the favorite playground activities of some students in Andy's class.

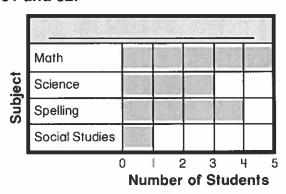
| Favorite Playground Activity |          |          |          |          |  |  |  |  |  |
|------------------------------|----------|----------|----------|----------|--|--|--|--|--|
| Swings                       | <b>③</b> | <b>(</b> | <b>③</b> |          |  |  |  |  |  |
| Slide                        | <b>(</b> | <b>(</b> | <b>©</b> | <b>(</b> |  |  |  |  |  |
| Teeter totter                | <b>(</b> | <b>③</b> | <b>(</b> |          |  |  |  |  |  |
| Monkey bars                  | <b>③</b> | <u></u>  |          |          |  |  |  |  |  |

Key: Each 🕑 stands for 1 student.

How many students in all chose the swings or the slide?

students

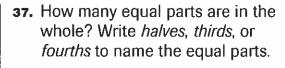
Use the bar graph for Questions 31 and 32.

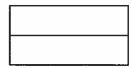


- **31.** Write a title for the bar graph.
- **32.** How many students chose spelling?

go on

33. Max draws a quadrilateral. Draw Max's shape.





parts

34. How many sides and vertices does the triangle have?



sides vertices

38. How many equal parts are in the whole? Write halves, thirds, or fourths to name the equal parts.



parts

35. Belinda drew a shape. How many vertices does her shape have?



vertices

39. Draw to show halves. Color half of the shape.



36. Circle the shapes that have more than 4 sides.



40. Mrs. Parker has two pizzas that are the same size. Draw to show two different ways she can divide the pizza into fourths.







| Grand Co. | -        | r  | ı  | 1  | ı  | Г  |    | <del></del> | I   | Г   | <u> </u> | 1   |
|-----------|----------|----|----|----|----|----|----|-------------|-----|-----|----------|-----|
| 12        | 12       | 24 | 36 | 48 | 09 | 72 | 84 | 96          | 108 | 120 | 132      | 144 |
| 11        | 11       | 22 | 33 | 44 | 55 | 99 | 27 | 88          | 66  | 110 | 121      | 132 |
| 10        | 10       | 20 | 30 | 40 | 50 | 09 | 20 | 80          | 90  | 100 | 110      | 120 |
| တ         | 6        | 18 | 22 | 36 | 45 | 54 | 63 | 72          | 81  | 06  | 66       | 108 |
| ω         | 8        | 16 | 24 | 32 | 40 | 48 | 99 | 64          | 72  | 80  | 88       | 96  |
| 2         | 2        | 14 | 21 | 28 | 35 | 42 | 49 | 26          | 63  | 02  | 22       | 84  |
| 9         | 9        | 12 | 18 | 24 | 30 | 36 | 42 | 48          | 54  | 09  | 99       | 72  |
| 2         | 2        | 10 | 15 | 20 | 25 | 30 | 35 | 40          | 45  | 20  | 52       | 09  |
| 4         | 4        | 8  | 12 | 16 | 20 | 24 | 28 | 32          | 36  | 40  | 44       | 48  |
| 3         | 3        | 9  | 6  | 12 | 15 | 18 | 21 | 24          | 27  | 30  | 33       | 36  |
| 2         | 2        | 4  | 9  | 8  | 10 | 12 | 14 | 16          | 18  | 20  | 22       | 24  |
|           | <b>,</b> | 2  | 3  | 4  | 2  | 9  | 2  | ∞           | 6   | 10  | -        | 12  |
| 0         |          | 2  | 3  | 4  | 2  | 9  | 2  | ∞           | 6   | 10  |          | 12  |

| Multiplyi | ng By ( | (A) |
|-----------|---------|-----|
|-----------|---------|-----|

Find each product.

| 0    | 0    | 0     | 7     | 0    | 3   | 11   | 1           | 0    | 10  |
|------|------|-------|-------|------|-----|------|-------------|------|-----|
| × 8  | × 4  | × 5   | × 0   | × 6  | × 0 | × 0  | × 0         | × 12 | × 0 |
|      |      |       |       |      |     |      |             |      |     |
| 0    | 11   | 0     | 4     | 12   | 0   | 0    | 5           | 8    | 0   |
| × 3  | × 0  | × 7   | × 0   | × 0  | × 9 | × 6  | × 0         | × 0  | × 1 |
|      |      |       |       |      |     |      |             |      |     |
| 0    | 0    | 1     | 6     | 10   | 7   | 0    | 0           | 2    | 0   |
| × 3  | × 12 | × 0   | × 0   | × 0  | × 0 | × 9  | × 11        | × 0  | × 5 |
|      |      |       |       |      |     |      |             |      |     |
| 0    | 12   | 7     | 1     | 8    | 0   | 6    | 11          | 0    | 0   |
| × 4  | × 0  | × 0   | × 0   | × 0  | × 5 | × 0  | × 0         | × 3  | × 2 |
|      |      |       |       |      |     |      |             |      |     |
| 2    | 0    | 7     | 11    | 12   | 5   | 10   | 0           | 6    | 0   |
| × 0  | × 3  | × 0   | × 0   | × 0  | × 0 | × 0  | × 8         | × 0  | × 9 |
|      |      |       |       |      |     | 1    |             |      |     |
| 10   | 0    | 0     | 9     | 0    | 0   | 8    | 0           | 0    | 0   |
| × 0  | × 12 | * × 6 | × 0   | × 5  | × 3 | × 0  | × 1         | × 4  | × 2 |
|      |      |       |       |      |     |      |             |      |     |
| 0    | 6    | 0     | 9     | 0    | 0   | 0    | 2           | 0    | 0   |
| × 7  | × 0  | × 4   | × 0   | × 10 | × 8 | × 12 | × 0         | × 5  | × 1 |
|      |      |       |       |      |     |      |             |      |     |
| 0    | 0    | 4     | 3     | 6    | 11  | 8    | 0           | 0    | 0   |
| × 2  | × 12 | × 0   | × 0   | × 0  | × 0 | × 0  | × 10        | × 5  | × 1 |
| FE.  |      |       |       |      |     |      | <del></del> |      |     |
| 0    | 0    | 0     | 0     | 0    | 0   | 6    | 5           | 0    | 2   |
| × 3  | × 4  | × 1   | × 8   | × 7  | × 9 | × 0  | × 0         | × 11 | × 0 |
|      |      |       |       |      |     |      |             |      |     |
| 0    | 0    | 0     | 5     | 0    | 4   | 0    | 3           | 1    | 2   |
| × 11 | × 12 | × 9   | _ × 0 | × 6  | × 0 | × 10 | × 0         | × 0  | × 0 |
|      |      |       |       |      |     |      |             |      |     |

# Multiplying By 1 (A) Find each product.

| 4          | 1         | 1           | 2         | 5           | 12         |            | 1            | 11          | 1           |
|------------|-----------|-------------|-----------|-------------|------------|------------|--------------|-------------|-------------|
| <u>×1</u>  | <u>×8</u> | <u>×7</u>   | <u>×1</u> | <u>×1</u>   | <u>×1</u>  | <u>×1</u>  | <u>×1</u>    | <u>×1</u>   | <u>×6</u>   |
| 1          | 1         | 1           | 1         | 1           | 12         | 4          | 1            | 1           | 1           |
| <u>× 9</u> | <u>×6</u> | <u>× 10</u> | <u>×5</u> | <u>×2</u>   | <u>×1</u>  | <u>×1</u>  | <u>×1</u>    | <u>×8</u>   | <u>×7</u>   |
| 1          | 4         | 12          | 1         | 1           | 1          | 8          | 1            | 6           | 1           |
| _          | × 1       |             |           |             |            | × 1        | _            | × 1         | × 10        |
| <u> </u>   |           |             |           |             |            |            |              |             |             |
| 4          | 3         | 6           | 9         | 2           | 1          | 8          | 1            | 1           | 1           |
| <u>×1</u>  | <u>×1</u> | <u>×1</u>   | <u>×1</u> | <u>×1</u>   | <u>×1</u>  | <u>×1</u>  | <u>×5</u>    | <u>× 10</u> | <u>× 12</u> |
| 2          | -         | 1           | 1         | 11          | 1          | 1          | 7            | 0           | 1           |
| 3<br>× 1   | 5<br>× 1  | 1<br>× 1    | _         | 11          | 1<br>~ Q   | 1<br>× 12  | 7<br>v 1     | × 1         | 1<br>× 4    |
|            |           |             |           |             |            | ~ 12       |              |             |             |
| 8          | 4         | 5           | 1         | 7           | 1          | 1          | 11           | 1           | 3           |
| <u>×1</u>  | <u>×1</u> | <u>×1</u>   | <u>×2</u> | <u>×1</u>   | <u>×1</u>  | _×6        | <u>×1</u>    | <u>× 10</u> | <u>×1</u>   |
|            |           | _           |           |             |            |            |              | _           |             |
| 11         | 1         | 5           | 1         | 1           | 1          | 1          | 1            | _           | 7           |
| <u>×1</u>  | <u>×3</u> | <u>×1</u>   | × 10      | <u>× 12</u> | <u>× Z</u> | <u>× 6</u> | <u>×1</u>    | <u>×1</u>   | <u>×1</u>   |
| 3          | 1         | 1           | 10        | 1           | 4          | 1          | 9            | 2           | 1           |
| <u>×1</u>  | <u>×5</u> | <u>×8</u>   | <u>×1</u> | <u>× 11</u> | <u>×1</u>  | _×6        | _ <u>× 1</u> | _ <u>×1</u> | <u>×1</u>   |
|            |           |             |           |             |            |            |              |             |             |
| 5          | 2         | 1           |           | 1           | 1          |            | 1            | 1           | 1           |
| <u>×1</u>  | <u>×1</u> | <u>× 10</u> | <u>×1</u> | <u>× 9</u>  | <u>×1</u>  | <u>×1</u>  | <u>×12</u>   | <u>×7</u>   | <u>×4</u>   |
| 3          | 4         | 1           | 1         | 1           | 1          | 12         | 11           | 6           | 1           |
|            |           |             |           |             |            | × 1        |              | × 1         |             |
|            |           |             |           |             |            |            |              |             |             |

# Multiplying By 2 (A) Find each product.

| 2          | 2   | 2           | 2           | 8    | 2    | 2    | 11         | 2    | 2    |
|------------|-----|-------------|-------------|------|------|------|------------|------|------|
| × 3        | _×4 | × 7         | × 12        | × 2  | × 10 | ×1   | × 2        | × 5  | × 2  |
| 2          | 2   | 2           | 11          | 5    | 7    | 2    | 6          | 2    | 4    |
| × 10       | _×1 | × 2         | _×2         | × 2  | × 2  | _×8  | _×2        | × 12 | × 2  |
| 10         | 5   | 2           | 6           | 3    | 2    | 2    | 2          | 2    | 2    |
| × 2        | × 2 | × 2         | × 2         | × 2  | × 12 | ×1   | × 9        | × 4  | ×8   |
| 7          | 2   | 2           | 9           | 12   | 2    | 5    | 2          | × 11 | 2    |
| _×2        | _×8 | _ <u>×1</u> | × 2         | × 2  | × 4  | × 2  | <u>× 6</u> |      | × 10 |
| 2          | 2   | 2           | 9           | 7    | 2    | 2    | 1          | 2    | 3    |
| × 2        | ×8  | <u>× 4</u>  | ×2          | × 2  | × 6  | × 5  | ×2         | × 11 | ×2   |
| 2          | 2   | 2           | 8           | 2    | 12   | 2    | 11         | 7    | 4    |
| _×9        | × 3 | × 2         | _×2         | × 5  | × 2  | _×6  | _×2        | × 2  | × 2  |
| 2          | 2   | 2           | 1           | 2    | 8    | 2    | 11         | 2    | 10   |
| _×6        | × 2 | _×3         | _×2         | × 9  | ×2   | × 7  | × 2        | × 4  | × 2  |
| 11         | 8   | 2           | 2           | 2    | 2    | 1    | 12         | 7    | 10   |
| × 2        | _×2 | ×3          | × 6         | _×9  | _×4  | _×2  | × 2        | × 2  | × 2  |
| 2          | 7   | 2           | 2           | 2    | 2    | 2    |            | 8    | 2    |
| <u>× 6</u> | _×2 | _×5         | _ <u>×1</u> | × 10 | × 2  | × 11 |            | × 2  | × 12 |
| 10         | 2   | 2           | 12          | 4    | 2    | 2    | 2          | 5    | 6    |
| × 2        | × 3 | _×1         | × 2         | × 2  | × 2  | ×8   | _×7        | × 2  | _×2  |

# Multiplying By 3 (A) Find each product.

| 2    | 8         | 3          | 3    | 3         | 9   | 6          | 5    | 11   | 10  |
|------|-----------|------------|------|-----------|-----|------------|------|------|-----|
| ×3   | _×3       | × 12       | ×4   | <u>×1</u> | ×3  | ×3         | _×3  | × 3  | ×3  |
| 12   | 3         | 4          | 3    | 3         | 3   | 8          | 3    | 3    | 1   |
| × 3  | × 11      | × 3        | × 2  | ×3        | × 5 | ×3         | × 6  | × 10 | ×3  |
| 3    | 3         | 3          | 3    | 3         | 6   | 4          | 8    | 3    | 2   |
| × 9  | ×3        | × 7        | × 10 | × 5       | × 3 | × 3        | _×3  | × 1  | ×3  |
| 7    | 2         | 9          | 3    | 3         | 3   | 3          | 3    | 12   | 8   |
| ×3   | ×3        | <u>× 3</u> | × 10 | ×1        | ×3  | <u>× 5</u> | × 4  | × 3  | ×3  |
| 3    | 11        | 5          | 7    | 2         | 9   | 8          | 3    | 12   | 3   |
| × 4  | _×3       | × 3        | ×3   | ×3        | ×3  | ×3         | × 10 | × 3  | ×1  |
| 3    | 4         | 3          | 3    | 1         | 7   | 3          | 8    | 10   | 11  |
| _×5  | ×3        | _×3        | × 9  | _×3       | _×3 | _×2        | _×3  | × 3  | _×3 |
| 3    | 3         | 3          | 3    | 3         | 10  | 3          | 3    | 3    | 3   |
| _×7  | <u>×1</u> | ×8         | × 12 | × 9       | × 3 | _×5        | _×6  | ×3   | × 4 |
| 10   | 5         | 7          | 3    | 12        | 6   | 3          | 3    | 11   | 3   |
| × 3  | × 3       | _×3        | ×3   | × 3       | ×3  | <u>× 8</u> | × 2  | × 3  | × 4 |
| 3    | 10        | 3          | 3    | 3         | 1   | 3          | 3    | 8    | 3   |
| × 12 | × 3       | × 3        | × 5  | × 9       | ×3  | × 2        | × 11 | _×3  | × 4 |
| 3    | 1         | 3          | 4    | 3         | 7   | 3          | 3    | 5    | 6   |
| × 9  | _×3       | ×8         | × 3  | × 10      | _×3 | × 12       | × 11 | × 3  | ×3  |

# Multiplying By 4 (A) Find each product.

| 4        | 4          | 8        | 11   | 3         | 1   | 4        | 10  | 4    | 9   |
|----------|------------|----------|------|-----------|-----|----------|-----|------|-----|
| _×5      | _×4        | _×4      | × 4  | × 4       | _×4 | _×2      | × 4 | _×7  | × 4 |
| 4        | 4          | 4        | 4    | 4         | 4   | 4        | 2   | 4    | 3   |
| × 10     | ×6         | ×1       | ×8   | × 11      | × 9 | × 5      | × 4 | × 12 | × 4 |
| 10       | 4          | 4        | 2    | 1         | 4   | 7        | 4   | 4    | 4   |
| × 4      | _×9        | × 11     | × 4  | _×4       | _×6 | _×4      | _×3 | × 12 | × 5 |
| 4        | 6          | 4        | 4    | 4         | 4   | 4        | 3   | 10   | 9   |
| × 2      | ×4         | _×7      | _×1  | _×8       | _×4 | × 12     | _×4 | × 4  | _×4 |
| 12       | 4          | 5        | 7    | 1         | 8   | 6        | 4   | 4    | 4   |
| _×4      | ×4         | × 4      | × 4  |           | × 4 | _×4      | × 2 | × 11 | × 9 |
| 4        | 11         | 4        | 4    | 4         | 7   | 4        | 4   | 1    | 8   |
| × 12     | _×4        | × 4      | × 3  | × 5       | _×4 | _×6      | × 9 | _×4  | × 4 |
| 6        | 4          | 4        | 12   | 9         | 4   | 10       | 1   | 5    | 4   |
| × 4      | × 11       | × 7      | × 4  | × 4       | × 4 | × 4      | ×4  | × 4  | × 3 |
| 4        | 4          | 8        | 11   | 4         | 5   | 4        | 1   | 4    | 12  |
| × 4      | × 7        | _×4      | _×4  | _×3       | _×4 | _×6      | _×4 | × 10 | × 4 |
| 1<br>_×4 | 6<br>_ × 4 | 4<br>× 9 |      | 4<br>× 11 |     | 4<br>× 2 |     |      |     |
| 4        | 4          | 1        | 4    | 4         | 9   | 4        | 6   | 4    | 4   |
| × 12     | × 10       | ×4       | × 11 | × 2       | _×4 | _×5      | × 4 | _×3  | × 7 |

| Multi      | plying | By 5 | (A)        |
|------------|--------|------|------------|
| 1 1 011 01 | P-78   | -j   | ( <i>)</i> |

Find each product.

| 3    | 7            | 12         | 4            | 5          | 2   | 5          | 9          | 5          | 10         |
|------|--------------|------------|--------------|------------|-----|------------|------------|------------|------------|
| × 5  | _×5          | × 5        | × 5          | ×1         | × 5 | _×5        | × 5        | × 11       | <u>× 5</u> |
| 5    | 6            | 5          | 1            | 5          | 5   | 10         | 5          | 5          | 3          |
| _×7  | _ <u>× 5</u> | × 9        | _ <u>× 5</u> | × 11       | _×5 | <u>× 5</u> | × 12       | _×8        | _×5        |
| 8    | 5            | 3          | 5            | 5          | 12  | 5          | 5          | 6          | 5          |
| ×5   | <u>×1</u>    | × 5        | × 10         | _×7        | × 5 | _×9        | _×5        | × 5        | <u>× 4</u> |
| 4    | 5            | 5          | 2            | 5          | 3   | 12         | 5          | 5          | 5          |
| × 5  | <u>×1</u>    | × 10       | × 5          | <u>× 6</u> | × 5 | _×5        | × 11       | ×8         | _× 9       |
| 3    | 6            | 2          | 5            | 8          | 1   | 11         | 9          | 5          | 5          |
| × 5  | ×5           | × 5        | × 5          | × 5        | × 5 | × 5        | <u>× 5</u> | × 12       | × 10       |
| 5    | 10           | 8          | 12           | 5          | 1   | 5          | 5          | 4          | 5          |
| _×5  | × 5          | × 5        | × 5          | <u>× 6</u> | _×5 | × 3        | _×2        | _×5        | × 9        |
| 5    | 10           | 5          | 5            | 5          | 8   | 2          | 5          | 5          | 3          |
| × 12 | × 5          | <u>× 6</u> | × 11         | <u>× 4</u> | _×5 | <u>× 5</u> | ×1         | <u>× 7</u> | × 5        |
| 5    | 5            | 8          | 9            | 6          | 5   | 7          | 5          | 10         | 5          |
| × 2  | × 12         | × 5        | × 5          | × 5        | _×5 | × 5        | × 1        | _×5        | × 11       |
| 2    | 5            | 5          | 5            | 5          | 11  | 5          | 5          | 5          | 5          |
| _×5  | <u>×8</u>    | × 5        | × 10         | × 12       | × 5 | _×9        | _×4        | _×1        | _× 7       |
| 5    | 6            | 5          | 4            | 5          | 5   | 12         | 3          | 2          | 5          |
| × 1  | × 5          | × 9        | × 5          | × 10       | _×7 | × 5        | × 5        | × 5        | _×8        |

# Multiplying By 6 (A) Find each product.

| 4         | 7         | 1          | 6           | 3          | 5          | 6           | 2           | 6           | 6         |
|-----------|-----------|------------|-------------|------------|------------|-------------|-------------|-------------|-----------|
| <u>×6</u> | _×6       | <u>×6</u>  | <u>× 12</u> | × 6        | × 6        | _× 6        | _×6         | <u>× 10</u> | _×9       |
| _         | 0         |            |             | _          | 4.0        | _           |             | _           |           |
| 6         | 9         | 8          | 4           | 6          | 12         | 6           | 10          | 3           | 11        |
| <u>×1</u> | <u>×6</u> | <u>× 6</u> | <u>×6</u>   | <u>× 6</u> | <u>× 6</u> | <u>×7</u>   | <u>× 6</u>  | <u>× 6</u>  | <u>×6</u> |
| 4         | 2         | = 6        | 7           | 11         | 3          | 6           | 6           | 12          | 6         |
| × 6       | × 6       |            | × 6         |            |            |             |             | × 6         | × 9       |
|           |           |            | <del></del> |            |            |             |             |             |           |
| 9         | 6         | 11         | 3           | 4          | 1          | 6           | 6           | 6           | 6         |
| _×6       | <u>×5</u> | _×6        | × 6         | × 6        | × 6        | × 8         | × 12        | × 2         | × 10      |
|           |           |            |             |            |            |             |             |             |           |
| 1         | 6         | 6          | 6           | 4          | 6          | 5           | 7           | 6           | 6         |
| × 6       | × 6       | × 11       | × 2         | × 6        | × 3        | × 6         | × 6         | × 9         | × 10      |
|           |           |            |             |            |            |             | <del></del> |             |           |
| 4         | 1         | 5          | 6           | 3          | 8          | 9           | 6           | 10          | 11        |
| × 6       | × 6       | × 6        | × 12        | × 6        | × 6        | × 6         | × 6         | × 6         | × 6       |
|           |           | 16         |             |            |            | <del></del> |             |             |           |
| 12        | 4         | 10         | 6           | 6          | 5          | 1           | 7           | 11          | 2         |
| × 6       | × 6       | × 6        | × 6         | × 8        | × 6        | × 6         | × 6         | × 6         | × 6       |
|           |           |            |             |            |            |             |             |             |           |
| 4         | 6         | 10         | - 6         | 6          | 6          | 6           | 6           | 8           | 6         |
| × 6       | × 3       | × 6        | × 1         | × 7        | × 6        | × 5         | × 11        | × 6         | × 9       |
|           |           |            |             |            |            |             |             |             |           |
| 2         | 7         | 6          | 6           | 6          | 6          | 6           | 3           | 6           | 6         |
| × 6       | × 6       | × 6        | × 8         | × 10       | × 12       | × 4         | × 6         | × 11        |           |
|           |           |            | 19          |            |            |             |             |             |           |
| 6         | 12        | 10         | 9           | 3          | 1          | 6           | 4           | 6           | 6         |
| × 11      |           | × 6        | × 6         | <u>×6</u>  |            | × 6         | × 6         | _×7         |           |
|           |           |            |             |            |            |             |             |             |           |

# Multiplying By 7 (A) Find each product.

| 7<br>× 8   | 4<br>× 7    | 7<br>× 6    | 7<br>× 11   | 7<br>× 10 | 9<br>× 7  | 3<br>× 7  | 7<br>× 7  | 2<br>× 7    | 7<br>× 1  |
|------------|-------------|-------------|-------------|-----------|-----------|-----------|-----------|-------------|-----------|
|            |             |             | -           |           |           |           |           | <u> </u>    |           |
| 2<br>× 7   | 7<br>× 5    | 7<br>× 10   | 8<br>× 7    | 7<br>× 9  | 4<br>× 7  | 6<br>× 7  | 7<br>× 1  | 7<br>× 7    | 12<br>× 7 |
|            |             | <u>~ 10</u> |             |           |           |           |           |             |           |
| 11         | 6           | 9           | 10          | 7         | 7         | 12        | 7         | 3           | 1         |
| <u>×7</u>  | <u>×7</u>   | <u>×7</u>   | <u>×7</u>   | <u>×4</u> | <u>×7</u> | <u>×7</u> | <u>×8</u> | <u>×7</u>   | <u>×7</u> |
| 2          | 7           | 7           | 3           | 7         | 5         | 10        | 7         | 7           | 7         |
| <u>×7</u>  | <u>× 12</u> | <u>×7</u>   | <u>×7</u>   | <u>×8</u> | <u>×7</u> | <u>×7</u> | <u>×9</u> | <u>×4</u>   | <u>×1</u> |
| 8          | 9           | 12          | 10          | 7         | 7         | 7         | 4         | 7           | 1         |
| _× 7       | <u>×7</u>   | <u>×7</u>   | <u>×7</u>   | <u>×3</u> | × 11      | <u>×2</u> | <u>×7</u> | <u>×7</u>   | <u>×7</u> |
| 7          | 4           | 7           | 7           | 7         | 12        | 7         | 7         | 2           | 1         |
| × 6        | × 7         | × 9         | × 3         | × 10      | × 7       | × 5       | × 8       | × 7         | × 7       |
|            |             |             |             | ~ 10      |           |           |           |             |           |
| 7          | 2           | 4           | 7           | 10        | 7         | 11        | 7         | 7           | 9         |
| <u>× 6</u> | <u>×7</u>   | <u>×7</u>   | <u>×7</u>   | <u>×7</u> | <u>×3</u> | × 7       | <u>×1</u> | <u>×8</u>   | <u>×7</u> |
| 7          | 7           | 7           | 11          | 1         | 7         | 6         | 10        | 7           | 3         |
| <u>×7</u>  | <u>× 12</u> | _×9         | <u>×7</u>   | <u>×7</u> | <u>×5</u> | _×7       | _ × 7     | _×4         | <u>×7</u> |
| 7          | 7           | 7           | 2           | 7         | 4         | 5         | 7         | 9           | 7         |
| × 8        | <u>×6</u>   |             |             | × 3       |           |           | × 12      |             |           |
|            |             |             |             |           |           |           |           |             |           |
| 1          | 7           | 7           | 7           | 4         | 3         | 6         | 2         | 7           | 7         |
| <u>×7</u>  | <u>× 9</u>  | <u>×8</u>   | <u>× 11</u> | <u>×7</u> | <u>×7</u> | <u>×7</u> | <u>×7</u> | <u>× 12</u> | <u>×7</u> |

# Multiplying By 8 (A) Find each product.

| 8            | 8    | 11          | 2          | 8         | 8           | 7          | 12        | 3   | 9          |
|--------------|------|-------------|------------|-----------|-------------|------------|-----------|-----|------------|
| _ <u>× 1</u> | × 6  | × 8         | × 8        | × 4       | _×8         | × 8        | × 8       | ×8  | _×8        |
| 8            | 5    | 8           | 10         | 7         | 8           | <u>×8</u>  | 9         | 2   | 6          |
| <u>× 3</u>   | ×8   | × 12        | × 8        | _×8       | <u>× 11</u> |            | <u>×8</u> | _×8 | ×8         |
| 4            | 3    | 8           | 2          | 9         | 8           | 7          | 8         | 11  | 8          |
| _×8          | ×8   | × 12        | ×8         | ×8        | ×5          | ×8         | <u>×1</u> | ×8  | ×8         |
| 11           | 10   | 8           | 8          | 8         | 5           | 2          | 12        | 1   | 8          |
| _×8          | × 8  | <u>× 7</u>  | <u>× 8</u> | × 9       | ×8          | ×8         | _×8       | _×8 | <u>× 6</u> |
| 4            | 8    | 8           | 9          | 8         | 6           | 5          | 8         | 12  | 8          |
| × 8          | ×2   | × 10        | _×8        | _×7       | <u>× 8</u>  | _×8        | _×8       | _×8 | _×1        |
| 5            | 8    | 7           | 8          | 2         | 8           | 8          | 11        | 8   | 10         |
| ×8           | _×9  | ×8          | _×1        | ×8        | × 12        | _×3        | _×8       | × 4 | × 8        |
| 1            | 8    | 9           | 8          | 5         | 3           | 4          | 12        | 8   | 2          |
| _×8          | × 10 | _ <u>×8</u> | × 11       | <u>×8</u> | ×8          | ×8         | × 8       | _×8 | ×8         |
| 8            | 8    | 12          | 8          | 8         | 8           | 8          | 3         | 8   | 8          |
| × 10         | × 2  | × 8         | × 11       | _×1       | ×8          | <u>× 5</u> | <u>×8</u> | _×4 | <u>× 6</u> |
| 6            | 10   | 8           | 3          | 8         | 1           | 8          | 8         | 8   | 8          |
| _×8          | × 8  | × 5         | <u>×8</u>  | × 12      | ×8          | × 9        | ×8        | _×7 | × 4        |
| 9            | 10   | 6           | 8          | 5         | 8           | 11         | 2         | 8   | 8          |
| _×8          | × 8  | _×8         | _×7        | ×8        | _×8         | × 8        | ×8        | _×4 | _×3        |

# Multiplying By 9 (A) Find each product.

| 4          | 9          | 3           | 2           | 9            | 9          | 12         | 8           | 10          | 9           |
|------------|------------|-------------|-------------|--------------|------------|------------|-------------|-------------|-------------|
| <u>× 9</u> | <u>× 6</u> | <u>× 9</u>  | <u>× 9</u>  | <u>× 9</u>   | <u>×5</u>  | <u>× 9</u> | <u>×9</u>   | <u>× 9</u>  | <u>× 11</u> |
| 3          | 9          | 9           | 9           | 9            | 9          | 9          | 9           | 9           | 12          |
| × 9        | × 2        | × 1         | × 9         | × 6          | × 8        | × 10       | × 7         | × 4         | × 9         |
|            |            |             |             |              |            | <u> </u>   |             |             |             |
| 8          | 9          | 6           | 4           | 9            | 10         | 7          | 3           | 9           | 1           |
| _ × 9      | _×9        | _×9         | _×9         | _ <u>×</u> 5 | _ × 9      | × 9        | × 9         | <u>× 11</u> | <u>× 9</u>  |
|            |            |             |             |              |            |            |             |             |             |
| 8          | 9          | 9           | 9           | 12           | 9          | 9          | 9           | 9           | 1           |
| <u>× 9</u> | <u>×7</u>  | <u>× 5</u>  | <u>× 9</u>  | <u>× 9</u>   | <u>×4</u>  | <u>×6</u>  | <u>× 11</u> | <u>×2</u>   | <u>× 9</u>  |
| 0          | 1          | 2           | 0           | 4            | 10         | 0          | 0           | 0           | 0           |
| 9          | 1          | 2           | 9           | 4            | 10         | 9          | 9           | 8           | 9           |
| <u>×3</u>  | <u>×9</u>  | <u>× 9</u>  | <u>× 11</u> | <u>× 9</u>   | <u>× 9</u> | <u>×7</u>  | × 12        | <u>× 9</u>  | <u>× 9</u>  |
| 9          | 9          | 9           | 9           | 9            | 8          | 9          | 4           | 9           | 9           |
| × 11       | × 10       | × 2         | × 12        | × 3          | × 9        | × 9        | × 9         | × 1         | × 6         |
|            |            |             |             |              |            |            |             |             |             |
| 1          | 9          | 5           | 9           | 6            | 3          | 9          | 9           | 9           | 9           |
| <u>× 9</u> | _×9        | <u>× 9</u>  | <u>× 12</u> | <u>×9</u>    | <u>×9</u>  | <u>×7</u>  | <u>×2</u>   | _ × 8       | <u>× 10</u> |
|            |            |             |             |              |            |            |             |             |             |
| 7          | 9          | 3           | 9           | 9            | 9          | 9          | 11          | 12          | 9           |
| <u>× 9</u> | <u>×4</u>  | <u>× 9</u>  | <u>×8</u>   | <u>×5</u>    | <u>×9</u>  | <u>×2</u>  | <u>× 9</u>  | × 9         | <u>×6</u>   |
|            |            | _           |             | _            | _          |            | _           | _           | _           |
| 9          | 4          | 9           | 1           | 7            | 9          | 9          | 9           | 8           | 5           |
| <u>× 9</u> | <u>×9</u>  | <u>× 11</u> | <u>× 9</u>  | <u>×9</u>    | × 10       | <u>×3</u>  | <u>× 6</u>  | <u>×9</u>   | <u>× 9</u>  |
| 6          | 7          | 2           | 0           | 0            | 11         | 0          | 0           | 0           | 2           |
| 6          | 7          | 2           | 9           | 9            | 11         | 8          | 9           | 9           | 3           |
| <u>× 9</u> | <u>× 9</u> | <u>×9</u>   | <u>× 10</u> | <u>×5</u>    | <u>×9</u>  | <u>× 9</u> | <u>×1</u>   | <u>× 9</u>  | <u>× 9</u>  |

#### Multiplying By 10 (A) Find each product.

| 3           | 10          | 10          | 7           | 10          | 2           | 10          | 10          | 5           | 10          |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <u>× 10</u> | _×9         | <u>× 10</u> | <u>× 10</u> | <u>×1</u>   | <u>× 10</u> | × 6         | <u>× 12</u> | × 10        | _×8         |
|             |             |             |             |             |             |             |             |             |             |
| 10          | 10          | 7           | 10          | 1           | 10          | 4           | 5           | 8           | 3           |
| <u>× 10</u> | <u>× 12</u> | <u>× 10</u> | <u>× 6</u>  | <u>× 10</u> | × 9         | <u>× 10</u> | <u>× 10</u> | <u>× 10</u> | <u>× 10</u> |
| 4.0         | 4.0         | 4.0         | 4.0         |             | 4.0         | _           | 4.0         | _           | _           |
| 10          | 10          | 10          | 10          | 11          | 10          | 3           | 10          | 2           | 4           |
| <u>× 6</u>  | <u>× 12</u> | <u>×1</u>   | <u>×7</u>   | <u>× 10</u> | <u>× 9</u>  | <u>× 10</u> | <u>×8</u>   | <u>× 10</u> | <u>× 10</u> |
| 10          | 9           | 4           | 5           | 1           | 10          | 10          | 10          | 10          | 7           |
| × 6         |             |             |             |             |             |             |             |             |             |
|             | <u>× 10</u> | <u>× 10</u> | <u>× 10</u> | <u>× 10</u> | <u>×3</u>   | <u>× 2</u>  | <u>× 12</u> | × 10        | × 10        |
| 8           | 5           | 10          | 10          | 6           | 10          | 10          | 4           | 10          | 10          |
| × 10        | × 10        | × 2         | × 1         | × 10        |             |             | × 10        | × 10        | × 3         |
|             |             |             |             |             |             |             | <del></del> |             |             |
| 10          | 10          | 10          | 12          | 10          | 10          | 10          | 7           | 10          | 10          |
| × 8         | × 2         | × 9         | × 10        | × 10        | × 11        | × 6         | × 10        | × 5         | × 4         |
|             | <del></del> |             |             | <del></del> |             |             |             |             |             |
| 4           | 10          | 10          | 10          | 10          | 7           | 10          | 10          | 10          | 9           |
| × 10        | <u>×2</u>   | <u>× 5</u>  | × 3         | _ × 1       | × 10        | _ × 6       | × 12        | × 10        | × 10        |
|             |             |             |             |             |             |             |             |             |             |
| 10          | 10          | 4           | 5           | 10          | 7           | 1           | 10          | 11          | 9           |
| <u>×2</u>   | × 12        | × 10        | × 10        | <u>× 10</u> | × 10        | <u>× 10</u> | <u>×3</u>   | <u>× 10</u> | × 10        |
|             |             |             |             |             |             |             |             |             |             |
| 4           | 2           | 10          | 10          | 8           | 1           | 10          | 10          | 10          | 11          |
| <u>× 10</u> | <u>× 10</u> | <u>×5</u>   | <u>× 6</u>  | <u>× 10</u> | <u>× 10</u> | <u>×3</u>   | <u>×7</u>   | <u>× 9</u>  | <u>× 10</u> |
| _           |             |             |             |             |             |             |             |             |             |
| 7           | 10          | 12          | 6           | 2           | 9           | 10          | 1           | 10          | 3           |
| <u>× 10</u> | × 10        | <u>× 10</u> | <u>× 10</u> | <u>× 10</u> | <u>× 10</u> | <u>× 11</u> | <u>× 10</u> | <u>×5</u>   | <u>× 10</u> |

#### Multiplying By 11 (A) Find each product.

| 3    | 11   | 11          | 9           | 10   | 8    | 1    | 2       | 11   | 11          |
|------|------|-------------|-------------|------|------|------|---------|------|-------------|
| × 11 | × 11 | × 5         | × 11        |      | × 11 | × 11 | × 11    | × 7  | × 6         |
|      |      |             | <del></del> |      |      |      |         |      | -           |
| 8    | 6    | 9           | 11          | 1    | 11   | 11   | 12      | 11   | 11          |
| × 11 | × 11 |             | × 11        |      |      |      | × 11    |      | × 3         |
|      |      |             |             |      |      |      |         |      |             |
| 10   | 3    | 6           | 2           | 11   | 7    | 11   | 11      | 11   | 11          |
| × 11 | × 11 | × 11        | × 11        |      | × 11 |      |         |      | × 9         |
|      |      |             |             |      |      |      |         |      |             |
| 11   | 11   | 11          | 8           | 11   | 11   | 3    | 5       | 10   | 11          |
| × 7  | × 11 | × 2         | × 11        | × 4  | × 9  | × 11 | × 11    | × 11 | × 12        |
|      |      |             |             |      |      |      |         |      |             |
| 11   | 11   | 11          | 11          | 12   | 11   | 11   | 11      | 2    | 11          |
| × 1  | × 10 | × 5         | × 7         | × 11 | × 6  | × 11 | × 3     | × 11 | × 9         |
|      |      |             |             | -    |      |      |         |      |             |
| 11   | 11   | 8           | 6           | 11   | 10   | 2    | 11      | 11   | 11          |
| × 3  | × 9  | × 11        | × 11        | × 7  | × 11 | × 11 | × 1     | × 5  | × 11        |
|      |      |             |             |      |      |      | <u></u> |      |             |
| 11   | 8    | 12          | 11          | 4    | 10   | 11   | 2       | 11   | 11          |
| × 5  | × 11 | × 11        | × 3         | × 11 | × 11 | × 11 | × 11    | × 1  | × 9         |
|      |      |             |             |      |      |      |         | -    | <del></del> |
| 4    | 7    | 10          | 8           | 3    | 12   | 11   | 5       | 6    | 11          |
| × 11 | × 11 | × 11        | × 11        | × 11 | × 11 | × 9  | × 11    | × 11 | × 11        |
|      |      | <del></del> |             |      |      |      |         |      |             |
| 6    | 9    | 11          | 7           | 11   | 11   | 11   | 11      | 11   | 11          |
| × 11 | × 11 | × 3         | × 11        | × 1  | × 5  | × 12 | × 10    | × 11 | × 8         |
|      |      |             |             |      |      |      |         |      |             |
| 11   | 11   | 11          | 7           | 1    | 9    | 11   | 5       | 11   | 6           |
| × 8  | × 10 | × 11        | × 11        | × 11 | × 11 |      |         |      | × 11        |
|      |      |             |             | -    |      |      |         |      |             |

# Multiplying By 12 (A) Find each product.

| 12          | 12           | 12          | 12          | 10          | 12          | 12          | 12          | 8           | 12          |
|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <u>× 9</u>  | × 11         | × 12        | <u>×2</u>   | <u>× 12</u> | <u>×1</u>   | <u>×5</u>   | <u>×3</u>   | <u>× 12</u> | <u>×4</u>   |
| 4.0         |              |             | -           |             | _           |             | _           | _           |             |
| 12          | 12           | 8           | 9           | 12          | 7           | 12          | 6           | 5           | 12          |
| <u>× 10</u> | <u>× 12</u>  | <u>× 12</u> | <u>× 12</u> | <u>×3</u>   | <u>× 12</u> | <u>×1</u>   | <u>× 12</u> | <u>× 12</u> | <u>× 11</u> |
| 12          | 12           | 6           | 5           | 12          | 9           | 12          | 10          | 12          | 11          |
| × 8         | × 7          |             |             |             | × 12        |             | × 12        | × 1         | × 12        |
|             |              | <u> </u>    | ~ 12        | <u> </u>    | <u>~ 12</u> |             |             |             |             |
| 2           | 1            | 4           | 8           | 9           | 12          | 5           | 12          | 12          | 12          |
| × 12        | × 12         | × 12        | × 12        | × 12        | × 6         | × 12        | × 3         | × 7         | × 10        |
|             | <del>.</del> | <del></del> |             |             |             |             |             |             |             |
| 12          | 12           | 12          | 5           | 12          | 8           | 12          | 12          | 2           | 12          |
| <u>×1</u>   | <u>×6</u>    | <u>×7</u>   | × 12        | <u>×4</u>   | × 12        | <u>× 10</u> | <u>× 9</u>  | <u>× 12</u> | _×3         |
|             |              |             |             |             |             |             |             |             |             |
| 8           | 12           | 4           | 10          | 9           | 7           | 2           | 11          | 12          | 12          |
| <u>× 12</u> | <u>× 12</u>  | <u>× 12</u> | <u>× 12</u> | <u>× 12</u> | <u>× 12</u> | <u>× 12</u> | <u>×12</u>  | <u>×3</u>   | <u>×1</u>   |
|             |              |             |             |             |             |             |             |             |             |
| 12          | 12           | 12          | 12          | 12          | 12          | 12          | 2           | 8           | 1           |
| <u>× 9</u>  | <u>×4</u>    | × 12        | <u>×5</u>   | × 10        | _×7         | _ × 3       | × 12        | <u>× 12</u> | × 12        |
|             |              |             |             | _           |             |             |             | _           | _           |
| 4           | 11           | 12          | 12          | 3           | 12          | 1           | 12          | 2           | 7           |
| <u>× 12</u> | <u>× 12</u>  | <u>× 12</u> | <u>×6</u>   | <u>× 12</u> | <u>× 10</u> | <u>× 12</u> | <u>×8</u>   | <u>× 12</u> | × 12        |
| 12          | 2            | 10          | 12          | 12          | 8           | 12          | 12          | 12          | 12          |
|             |              |             | × 4         |             |             |             |             |             |             |
| <u>× 11</u> | <u>× 12</u>  | × 12        | <u>× 4</u>  | <u>× 9</u>  | <u>× 12</u> | <u>× 6</u>  | <u>×7</u>   | <u>×1</u>   | <u>× 12</u> |
| 12          | 11           | 5           | 8           | 7           | 4           | 12          | 12          | 3           | 12          |
|             |              |             |             |             | × 12        |             |             |             | × 2         |
|             |              |             |             |             |             |             |             |             |             |

| 12 |     |    |                |   |   |   |   |   |   |     |    |
|----|-----|----|----------------|---|---|---|---|---|---|-----|----|
| -  |     |    |                |   |   |   |   |   |   |     |    |
| 10 |     | (C | · <del>-</del> |   |   |   |   |   |   |     |    |
| 6  |     |    |                |   |   |   |   |   |   |     |    |
| ∞  | űs: |    |                |   |   |   |   |   |   | 770 |    |
| 2  |     |    |                |   |   |   |   |   |   |     |    |
| 9  |     |    |                |   |   |   |   |   |   |     |    |
| 2  |     |    |                |   |   |   |   |   | - |     |    |
| 4  |     |    |                |   |   |   |   |   |   |     |    |
| 3  |     |    |                |   |   |   |   |   |   |     |    |
| 2  |     |    |                |   |   |   |   |   |   |     |    |
|    |     |    |                |   |   |   |   |   |   |     |    |
| 0  |     | 2  | 3              | 4 | 2 | 9 | 2 | 8 | တ | 10  | 12 |

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