

Name _____

Date _____

1. Skip-count by six to fill in the blanks. Match each number in the count-by with its multiplication fact.

2. Count by six to fill in the blanks below.

6, 12, 18, 24

Complete the multiplication equation that represents the final number in your count-by.

$6 \times \underline{4} = \underline{24}$

Complete the division equation that represents your count-by.

$\underline{24} \div 6 = \underline{4}$

3. Count by six to fill in the blanks below.

6, 12, 18, 24, 30, 36, 42

Complete the multiplication equation that represents the final number in your count-by.

$6 \times \underline{7} = \underline{42}$

Complete the division equation that represents your count-by.

$\underline{42} \div 6 = \underline{7}$

4. Mrs. Byrne’s class skip-counts by six for a group counting activity. When she points up, they count up by six and when she points down, they count down by six. The arrows show when she changes direction.
- a. Fill in the blanks below to show the group counting answers.

$\uparrow 0, 6, \underline{12}, 18, \underline{24} \downarrow \underline{18}, 12 \uparrow \underline{18}, 24, 30, \underline{36} \downarrow 30, 24, \underline{18} \uparrow 24, \underline{30}, 36, \underline{42}, 48$

- b. Mrs. Byrne says the last number that the class counts is the product of 6 and another number. Write a multiplication sentence and a division sentence to show she’s right.

$6 \times \underline{8} = 48$

$48 \div 6 = \underline{8}$

5. Julie counts by six to solve 6×7 . She says the answer is 36. Is she right? Explain your answer.

6, 12, 18, 24, 30, 36, 42

No, six 7 times is 42.

$6 \times 7 = 42.$

She only counted six 6 times to get $6 \times 6 = 36.$

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1. Use number bonds to help you skip-count by six by either making a ten or adding to the ones.

a. $6 + 6 = 10 + 2 = 12$

b. $12 + 6 = 10 + 8 = 18$

c. $18 + 6 = 20 + 4 = 24$

d. $24 + 6 = 20 + 10 = 30$

e. $30 + 6 = 36$

f. $36 + 6 = 40 + 2 = 42$

g. $42 + 6 = 40 + 8 = 48$

h. $48 + 6 = 50 + 4 = 54$

i. $54 + 6 = 50 + 10 = 60$

2. Count by six to fill in the blanks below.

6, 12, 18, 24, 30

Complete the multiplication equation that represents the final number in your count-by.

$$6 \times \underline{5} = \underline{30}$$

Complete the division equation that represents your count-by.

$$\underline{30} \div 6 = \underline{5}$$

3. Count by six to fill in the blanks below.

6, 12, 18, 24, 30, 36

Complete the multiplication equation that represents the final number in your count-by.

$$6 \times \underline{6} = \underline{36}$$

Complete the division equation that represents your count-by.

$$\underline{36} \div 6 = \underline{6}$$

4. Count by 6 to solve $48 \div 6$. Show your work below.

6, 12, 18, 24, 30, 36, 42, 48

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1. Skip-count by seven to fill in the blanks and match each count-by to its multiplication expression. Then use the multiplication equation to write the related division fact directly to the right.

7
14
21
28
35
42
49
56
63

7×6
 7×3
 7×8
 7×7
 7×1
 7×5
 7×9
 7×4
 7×2

$42 \div 7 = 6$

$21 \div 7 = 3$

$56 \div 7 = 8$

$49 \div 7 = 7$

$7 \div 7 = 1$

$35 \div 7 = 5$

$63 \div 7 = 9$

$28 \div 7 = 4$

$14 \div 7 = 2$

2. Complete the count by seven sequence below. Then write a multiplication equation and a division equation to represent each blank you filled in.

7, 14, 21, 28, 35, 42, 49, 56, 63, 70
 a) b) c) d) e)

a) 3 × 7 = 21 21 ÷ 7 = 3
 b) 5 × 7 = 35 35 ÷ 7 = 5
 c) 7 × 7 = 49 49 ÷ 7 = 7
 d) 8 × 7 = 56 56 ÷ 7 = 8
 e) 10 × 7 = 70 70 ÷ 7 = 10

3. Abe says $3 \times 7 = 21$ because 1 seven is 7, 2 sevens are 14 and 3 sevens are $14 + 6 + 1$, which equals 21. Why did Abe add 6 and 1 to 14, when he is counting by seven? ✓

3 sevens = 14 + 7 = 21
 20 6 1

He broke up the 7 to make it easier to add to 14.

4. Molly says she can count by seven 6 times to solve 7×6 . James says he can count by six 7 times to solve this problem. Who is right? Explain your answer.

They both are $7 \times 6 = 6 \times 7$
 You can count by either 7's or 6's to find $7 \times 6 = 42$.

Name _____

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Complete the **count by seven** sequence below. Then write a multiplication equation and a division equation to represent each number in the sequence.

7, 14, 21, 28, 35, 42, 49, 56, 63, 70

- | | | |
|----|--|--|
| a. | $\frac{1}{\quad} \times 7 = \frac{7}{\quad}$ | $\frac{7}{\quad} \div 7 = \frac{1}{\quad}$ |
| b. | $\frac{2}{\quad} \times 7 = \frac{14}{\quad}$ | $\frac{14}{\quad} \div 7 = \frac{2}{\quad}$ |
| c. | $\frac{3}{\quad} \times 7 = \frac{21}{\quad}$ | $\frac{21}{\quad} \div 7 = \frac{3}{\quad}$ |
| d. | $\frac{4}{\quad} \times 7 = \frac{28}{\quad}$ | $\frac{28}{\quad} \div 7 = \frac{4}{\quad}$ |
| e. | $\frac{5}{\quad} \times 7 = \frac{35}{\quad}$ | $\frac{35}{\quad} \div 7 = \frac{5}{\quad}$ |
| f. | $\frac{6}{\quad} \times 7 = \frac{42}{\quad}$ | $\frac{42}{\quad} \div 7 = \frac{6}{\quad}$ |
| g. | $\frac{7}{\quad} \times 7 = \frac{49}{\quad}$ | $\frac{49}{\quad} \div 7 = \frac{7}{\quad}$ |
| h. | $\frac{8}{\quad} \times 7 = \frac{56}{\quad}$ | $\frac{56}{\quad} \div 7 = \frac{8}{\quad}$ |
| i. | $\frac{9}{\quad} \times 7 = \frac{63}{\quad}$ | $\frac{63}{\quad} \div 7 = \frac{9}{\quad}$ |
| j. | $\frac{10}{\quad} \times 7 = \frac{70}{\quad}$ | $\frac{70}{\quad} \div 7 = \frac{10}{\quad}$ |

Name _____

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1. Use number bonds to help you skip-count by seven by making ten or adding to the ones.

(a) $7 + 7 = 10 + 4 = 14$

(b) $14 + 7 = 20 + 1 = 21$

(c) $21 + 7 = 20 + 8 = 28$

(d) $28 + 7 = 30 + 5 = 35$

(e) $35 + 7 = 42$

(f) $42 + 7 = 40 + 9 = 49$

(g) $49 + 7 = 50 + 6 = 56$

(h) $56 + 7 = 60 + 3 = 63$

2. Skip-count by seven to fill in the blanks. Then use the multiplication equation to write the related division fact directly to the right.

70

$7 \times 10 = 70$

$70 \div 7 = 10$

63

$7 \times 9 = 63$

$63 \div 7 = 9$

56

$7 \times 8 = 56$

$56 \div 7 = 8$

49

$7 \times 7 = 49$

$49 \div 7 = 7$

42

$7 \times 6 = 42$

$42 \div 7 = 6$

35

$7 \times 5 = 35$

$35 \div 7 = 5$

28

$7 \times 4 = 28$

$28 \div 7 = 4$

21

$7 \times 3 = 21$

$21 \div 7 = 3$

14

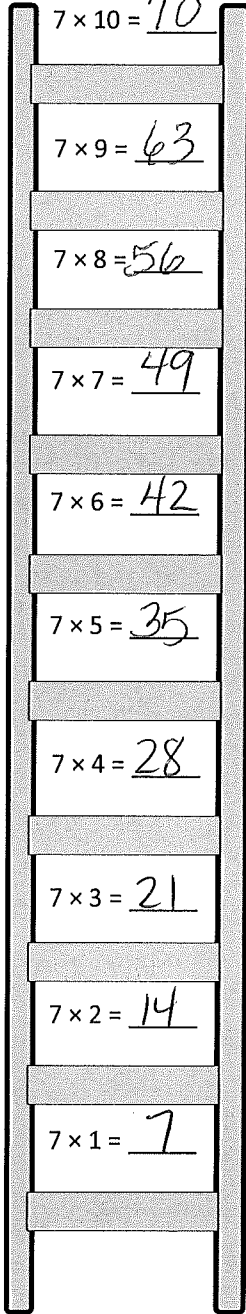
$7 \times 2 = 14$

$14 \div 7 = 2$

7

$7 \times 1 = 7$

$7 \div 7 = 1$



8x6
9x6

6x6 and 7x6
can be built from
the facts they
already know.
5x6 is the same
in each problem

Name: _____

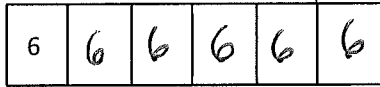
Date: _____

1. Label the tape diagrams. Then fill in the blanks below to make the statements true.

a. $6 \times 6 = \underline{36}$

$(5 \times 6) = \underline{30}$

$(\underline{1} \times 6) = \underline{6}$

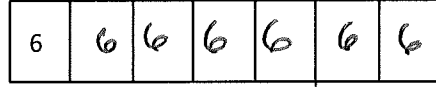


$$\begin{aligned} (6 \times 6) &= (5 + 1) \times 6 \\ &= (5 \times 6) + (1 \times 6) \\ &= \underline{30} + \underline{6} \\ &= \underline{36} \end{aligned}$$

b. $7 \times 6 = \underline{42}$

$(5 \times 6) = \underline{30}$

$(\underline{2} \times 6) = \underline{12}$

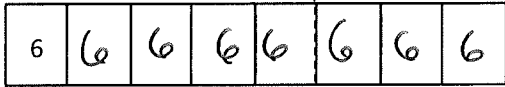


$$\begin{aligned} (7 \times 6) &= (5 + 2) \times 6 \\ &= (5 \times 6) + (2 \times 6) \\ &= \underline{30} + \underline{12} \\ &= \underline{42} \end{aligned}$$

c. $8 \times 6 = \underline{48}$

$(5 \times 6) = \underline{30}$

$(\underline{3} \times 6) = \underline{18}$



$$\begin{aligned} 8 \times 6 &= (5 + \underline{3}) \times 6 \\ &= (5 \times 6) + (\underline{3} \times 6) \\ &= \underline{30} + \underline{18} \\ &= \underline{48} \end{aligned}$$

d. $9 \times 6 = \underline{54}$

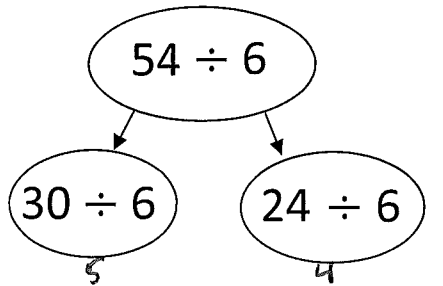
$(5 \times 6) = \underline{30}$

$(\underline{4} \times 6) = \underline{24}$



$$\begin{aligned} 9 \times 6 &= (5 + \underline{4}) \times 6 \\ &= (5 \times 6) + (\underline{4} \times 6) \\ &= \underline{30} + \underline{24} \\ &= \underline{54} \end{aligned}$$

2. Break apart 54 to solve $54 \div 6$.

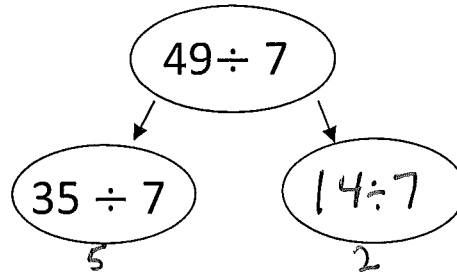


$$54 \div 6 = (30 \div 6) + (\underline{24} \div 6)$$

$$= 5 + \underline{4}$$

$$= \underline{9}$$

3. Break apart 49 to solve $49 \div 7$.

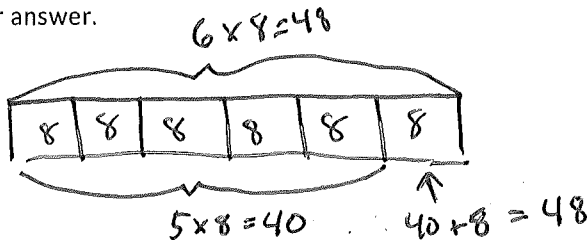


$$49 \div 7 = (35 \div 7) + (\underline{14} \div 7)$$

$$= 5 + \underline{2}$$

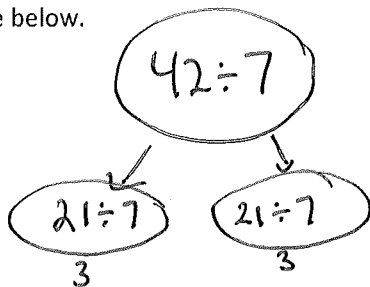
$$= \underline{7}$$

4. Robert says that he can solve 6×8 by thinking of it as $(5 \times 8) + 8$. Is he right? Draw a picture to help you explain your answer.



Yes, he found 6 eights which equals 48.

5. Kelly solves $42 \div 7$ by using a number bond to break apart 42 into two parts. Show what her work might look like below.



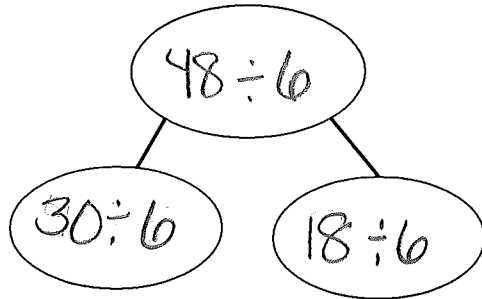
$$42 \div 7 = (21 \div 7) + (21 \div 7)$$

$$= 3 + 3$$

$$= 6$$

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1. A parking lot has space for 48 cars. Each row has 6 parking spaces. Break apart 48 to find how many cars can park in each row.



$$48 \div 6 = (30 \div 6) + (18 \div 6)$$

$$= 5 + 3$$

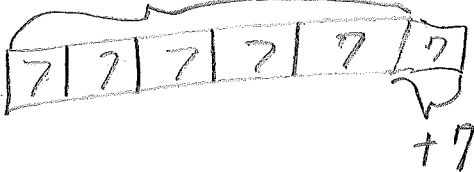
$$= 8$$

8 cars can park in each row.

2. Malia solves 6×7 using $(5 \times 7) + 7$. Leonidas solves 6×7 using $(6 \times 5) + (6 \times 2)$. Who is correct? Draw a picture to help you explain your answer.

Malia

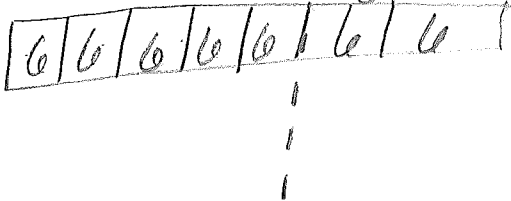
$$5 \times 7 = 35$$



They are both correct both equations equal 42.

Leonidas

$$6 \times 5 = 30 ; 6 \times 2 = 12$$



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1. Label the tape diagrams. Then fill in the blanks below to make the statements true.

a. $6 \times 7 = \underline{42}$

$(5 \times 7) = \underline{35}$ $(\underline{1} \times 7) = \underline{7}$



$$\begin{aligned} (6 \times 7) &= (5 + 1) \times 7 \\ &= (5 \times 7) + (1 \times 7) \\ &= \underline{35} + \underline{7} \\ &= \underline{42} \end{aligned}$$

b. $7 \times 7 = \underline{49}$

$(5 \times 7) = \underline{35}$ $(\underline{2} \times 7) = \underline{14}$



$$\begin{aligned} (7 \times 7) &= (5 + 2) \times 7 \\ &= (5 \times 7) + (2 \times 7) \\ &= \underline{35} + \underline{14} \\ &= \underline{49} \end{aligned}$$

c. $8 \times 7 = \underline{56}$

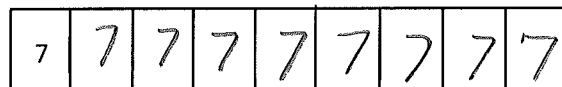
$(5 \times 7) = \underline{35}$ $(\underline{3} \times 7) = \underline{21}$



$$\begin{aligned} 8 \times 7 &= (5 + \underline{3}) \times 7 \\ &= (5 \times 7) + (\underline{3} \times 7) \\ &= \underline{35} + \underline{21} \\ &= \underline{56} \end{aligned}$$

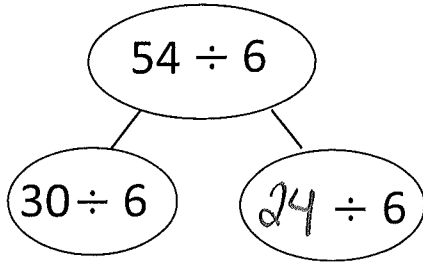
d. $9 \times 7 = \underline{63}$

$(5 \times 7) = \underline{35}$ $(\underline{4} \times 7) = \underline{28}$



$$\begin{aligned} 9 \times 7 &= (5 + \underline{4}) \times 7 \\ &= (5 \times 7) + (\underline{4} \times 7) \\ &= \underline{35} + \underline{28} \\ &= \underline{63} \end{aligned}$$

2. Break apart 54 to solve $54 \div 6$.

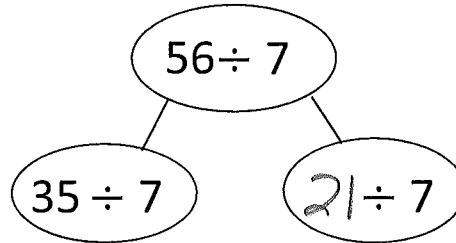


$$54 \div 6 = (30 \div 6) + (24 \div 6)$$

$$= 5 + \frac{4}{1}$$

$$= 9$$

3. Break apart 56 to solve $56 \div 7$.

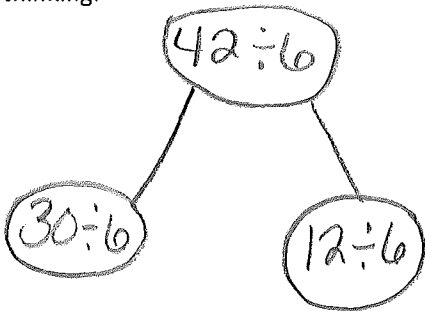


$$56 \div 7 = (35 \div 7) + (21 \div 7)$$

$$= 5 + \frac{3}{1}$$

$$= 8$$

4. Forty-two third grade students sit in 6 equal rows in the auditorium. How many students sit in each row? Show your thinking.



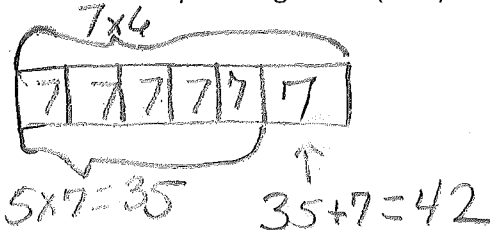
$$42 \div 6 = (30 \div 6) + (12 \div 6)$$

$$= 5 + 2$$

$$= 7$$

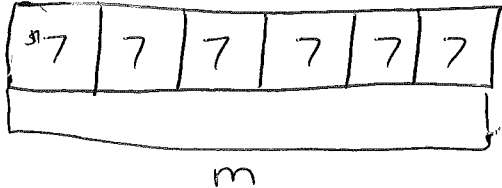
7 students sit in each row.

5. Ronaldo solves 7×6 by thinking of it as $(5 \times 7) + 7$. Is he correct? Explain Ronaldo's strategy.



Yes Ronaldo found a total of 6 sevens which equals 42.

2. Ari sells 6 boxes of pens at the school store.
 a. Each box of pens sells for \$7. Draw a tape diagram and label the total amount of money he makes as m . Write an equation and solve for m .

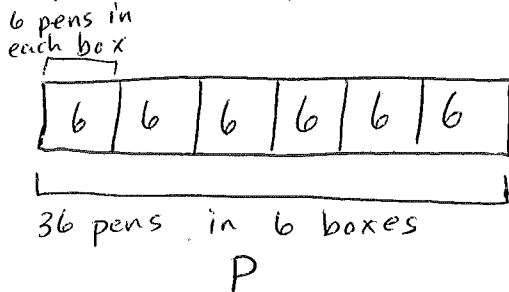


$$6 \times \$7 = m$$

$$\$42 = m$$

Ari makes \$42.

- b. Each box contains 6 pens. Draw a tape diagram and label the total number of pens as p . Write an equation and solve for p .

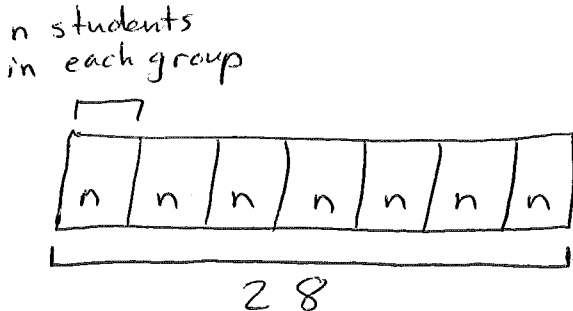


$$6 \times 6 = p$$

$$36 = p$$

36 total pens.

3. Mr. Lucas divides 28 students into 7 equal groups for a project. Draw a tape diagram and label the number of students in each group as n . Write an equation and solve for n .



$$28 \div 7 = n$$

$$4 = n$$

There are 4 students in each group.

Name _____

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1. Match the words to the correct equation.

a number times 6 equals 30

7 times a number equals 42

6 times 7 equals a number

63 divided by a number equals 9

36 divided by a number equals 6

a number times 7 equals 21

$n \times 7 = 21$

$n \times 6 = 30$

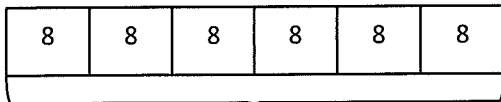
$6 \times 7 = n$

$7 \times n = 42$

$36 \div n = 6$

$63 \div n = 9$

2. Write an equation to represent the tape diagram below and solve for the unknown.



$6 \times 8 = 48$

Equation: $k \div 8 = 6$

$48 \div 8 = 6$

$k = 48$

3. Model each problem with a drawing. Then, write an equation using a letter to represent the unknown and solve for the unknown.

a. Each student gets 3 pencils. There are a total of 21 pencils. How many students are there?

$$s \times 3 = 21$$

$$21 \div 3 = s$$

$$7 \times 3 = 21$$

$$s = 7$$

There are 7
Students

b. Henry spends 24 minutes practicing 6 different basketball drills. He spends the same amount of time on each drill. How much time does Henry spend on each drill?

$$24 \div 6 = t$$

$$t = 4$$

He spends 4 minutes
on each drill.

c. Jessica has 8 pieces of yarn for a project. Each piece of yarn is 6 centimeters long. What is the total length of the yarn?

$$8 \times 6 = L$$

$$L = 48 \text{ cm}$$

The yarn is 48 cm
long total.

d. Ginny measures 6 milliliters of water into each beaker. She pours a total of 54 milliliters. How many beakers does Ginny use?

$$54 \div 6 = b$$

$$9 = b$$

She uses 9 beakers.

Name _____

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1. Three boys and three girls each buy 7 bookmarks. How many bookmarks do they buy altogether? Write an equation using a letter to represent the unknown. Then solve for the unknown.

$$3 \text{ boys} + 3 \text{ girls} = 6 \text{ children}$$

$$6 \times 7 = z$$

$$42 = z$$

They buy 42 bookmarks altogether.

2. Seven friends equally share the cost of a \$56 meal. How much does each person pay? Write an equation using a letter to represent the unknown. Then solve for the unknown.

$$\$56 \div 7 = p$$

$$\$8 = p$$

Each person paid \$8

or

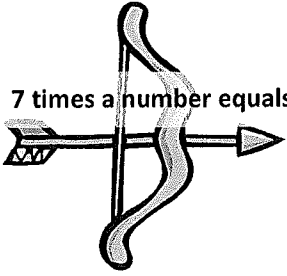
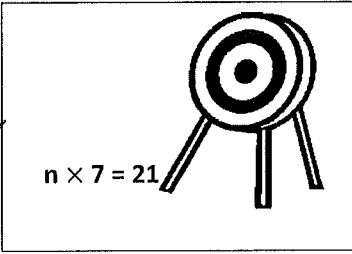
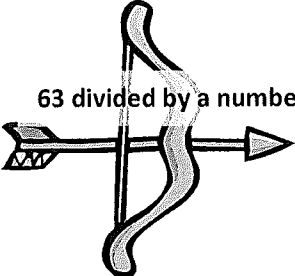
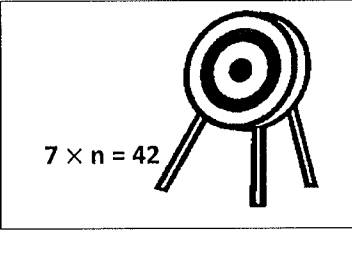
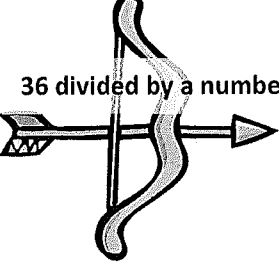
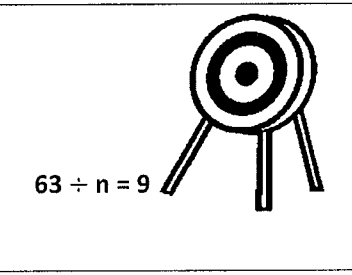
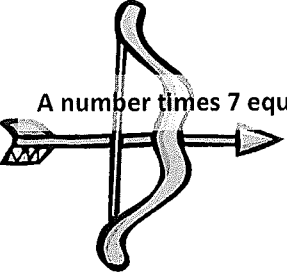
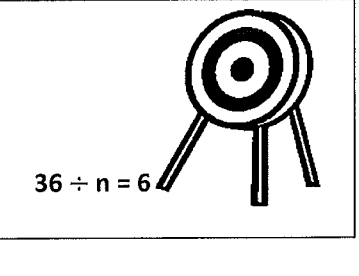
$$7 \times p = \$56$$

$$p = \$8$$

Name _____

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1. Match the words on the arrow to the correct equation on the target.

 <p>7 times a number equals 42</p>	 <p>$n \times 7 = 21$</p>
 <p>63 divided by a number equals 9</p>	 <p>$7 \times n = 42$</p>
 <p>36 divided by a number equals 6</p>	 <p>$63 \div n = 9$</p>
 <p>A number times 7 equals 21</p>	 <p>$36 \div n = 6$</p>