## flomeworlk

1. Complete the Multiplication Table.

| $\bullet$ |  | 2 |  | 4 | 5 |  | 7 | 8 | 9 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| 1 | 1 | 2 | 3 |  | 5 | 6 |  | 8 | 9 |
|  | 2 | 4 |  | 8 |  | 12 | 14 |  | 18 |
| 3 |  |  | 9 |  | 15 | 18 |  | 24 |  |
|  | 4 | 8 |  | 16 |  | 24 | 28 |  | 36 |
| 5 | 5 | 10 | 15 |  | 25 |  | 35 |  | 45 |
|  |  |  | 18 | 24 | 30 | 36 |  | 48 |  |
| 7 |  | 14 |  |  |  |  |  | 56 |  |
|  | 8 |  |  | 32 | 40 |  | 56 |  | 72 |
| 9 | 9 | 18 | 27 |  | 45 | 54 |  | 72 |  |

2. Complete the Scrambled Multiplication Table.

| $\bullet$ | 5 |  | 4 |  |  | 3 |  | 2 | 6 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| 4 | 20 |  |  | 36 |  | 12 |  |  | 24 |
| 1 |  | 8 |  | 9 | 7 |  | 1 |  |  |
| 8 |  | 64 | 32 |  | 56 | 24 |  | 16 |  |
|  | 15 |  |  |  | 21 |  | 3 | 6 |  |
| 7 | 35 |  | 28 | 63 |  | 21 |  | 14 | 42 |
|  | 25 |  | 20 |  | 35 |  | 5 | 10 |  |
| 6 | 30 | 48 |  | 54 |  | 18 | 6 |  | 36 |
| 9 |  | 72 | 36 | 81 |  | 27 | 9 | 18 |  |
|  | 10 |  | 8 |  | 14 | 6 | 2 |  | 12 |

3. Describe your strategy for filling in the top row of the Scrambled Multiplication Table.

## Rememberfing

## Multiply or divide.

1. $42 \div 6=$
2. $-=56 \div 7$
3. $\quad=8 \times 9$
4. $\qquad$ 5. $9 \cdot 4=$ $\qquad$ 6. $\quad=\frac{63}{7}$
$7.6 \cdot 6=$ $\qquad$ 8. $\quad=6 \bullet 9$
5. $81 \div 9=$ $\qquad$
6. $\frac{72}{9}=$ $\qquad$ 11. $\qquad$ $=8 \times 4$
7. $-=48 \div 8$
8. $\qquad$ $=8 \cdot 8$
9. $24 \div 6=$ $\qquad$
10. $\quad=\frac{36}{6}$

Represent the situation with an equation. Solve.
16. The town planted 3 new trees in the park. Now there are 27 trees. How many trees were there before the new trees were planted?

Equation: $\qquad$
Answer:
18. At the start of the day on Friday, 40 tickets had been sold to the school play. During the day, some more tickets were sold. By the end of the day on Friday, 48 tickets were sold. How many tickets were sold during the day on Friday?

Equation: $\qquad$
Answer: $\qquad$
17. In the school parking lot, there are 6 rows of cars with 30 cars in each row. How many cars are there in the school parking lot?

## Equation:

$\qquad$
Answer: $\qquad$
19. Arun has 3 birds. He has 6 times as many goldfish as birds. How many goldfish does Arun have?

```
G
\begin{tabular}{|l|l|l|l|l|l|}
\hline 3 & 3 & 3 & 3 & 3 & 3 \\
\hline
\end{tabular}
B 3
```


## Equation:

$\qquad$
Answer: $\qquad$
20. Stretch Your Thinking Cary bought a large bag of 12 apples and 3 small bags with 6 apples each. How many apples did Cary buy? Hint: Use parentheses if you need to.

## Equation:

$\qquad$
Answer:

## Homework

Solve each Factor Puzzle.
1.

2.

3.

6.

7.

10.

11.

9.

12.

13. Describe strategies for solving a Factor Puzzle.
$\qquad$
$\qquad$
$\qquad$

## Rememberthg

## Multiply or divide.

1. $\qquad$ $=9 \times 7$
2. $36 \div 6=$ $\qquad$
3. $\qquad$ $=48 \div 8$
4. $\qquad$
5. 
6. $8 \cdot 7=$ $\qquad$
7. $81 \div 9=$ $\qquad$
8. $4 \cdot 7=$ $\qquad$
9. $\qquad$

$$
=8 \cdot 8
$$

10. $\quad \square=\frac{32}{8}$
11. $6 \cdot 8=$ $\qquad$
12. $\qquad$ $=\frac{16}{4}$
13. $\qquad$ $=54 \div 6$
14. $\frac{72}{9}=$
15. $\qquad$ $=6 \times 7$

Represent the situation with an equation. Solve.
16. Vincent had 120 baseball cards. Then he bought some more. Now he has 160 cards. How many cards did Vincent buy?

Equation: $\qquad$
Answer: $\qquad$
18. Mrs. Martin made 12 tuna sandwiches. This was 3 times the number of cheese sandwiches that she made. How many cheese sandwiches did she make?

T | 4 | 4 | 4 |
| :--- | :--- | :--- |

C $\square$
Equation: $\qquad$
Answer: $\qquad$
17. Frank buys 8 packages of light bulbs. There are 4 light bulbs in each package. How many light bulbs does he buy?

## Equation:

$\qquad$
Answer: $\qquad$
19. Maria has a box of beads. She used 60 beads to make a necklace for her mother. Now there are 420 beads left in the box. How many beads were in the box before Maria made the necklace?

Equation: $\qquad$
Answer: $\qquad$
20. Stretch Your Thinking Jared ran 7 miles on Monday and 3 times as far on Tuesday. How many more miles did Jared run on Tuesday than on Monday? Hint: Use parentheses if you need to.

Equation: $\qquad$
Answer: $\qquad$

## Homeworlk

## Complete this story about Noreen's older brother, Tim.

Tim saved $\$ 5$ every day. Noreen and Tim both started to save on the same day. Draw pictures of Tim's bank each day if that helps you decide how much he has saved.

Tim began with an empty bear bank.

1. On Day 1 Tim put $\$ 5$ into his bear bank.

On Day 1 Tim had $\qquad$ in his bank.
2. On Day 2 Tim put $\$ 5$ into his bear bank.

On Day 2 Tim had $\qquad$ in his bank.
3. On Day 3 Tim put $\$ 5$ into his bear bank.

On Day 3 Tim had $\qquad$ in his bank.
4. On Day 4 Tim put $\$ 5$ into his bear bank.

On Day 4 Tim had $\qquad$ in his bank.
5. On Day 5 Tim put $\$ 5$ into his bear bank.

On Day 5 Tim had $\qquad$ in his bank.
6. On Day 6 Tim put $\$ 5$ into his bear bank.

On Day 6 Tim had $\qquad$ in his bank.
7. On Day 7 Tim put $\$ 5$ into his bear bank.

On Day 7 Tim had $\qquad$ in his bank.
8. On Day 8 Tim put $\$ 5$ into his bear bank.

On Day 8 Tim had $\qquad$ in his bank.
9. Complete the rate table to show Tim's savings.

| Days | Dollars |
| :---: | :---: |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |

## Rememberfing

## Multiply or divide.

1. $56 \div 7=$ $\qquad$
2. $-72 \div 8$
3. $\_$_ $9 \bullet 9$
4. $8 \cdot 4=$ $\qquad$
5. $ـ \quad=7 \bullet 6$
6. $56 \div 8=$ $\qquad$
7. $\quad=6 \bullet 4$
8. $36 \div 6=$ $\qquad$ 9. $-\quad=\frac{28}{7}$
9. $7 \cdot 7=$ $\qquad$ 11. $\quad \square=\frac{16}{4}$
10. $-=\frac{63}{7}$
11. $\frac{32}{8}=$ $\qquad$
12. $\qquad$ $=7 \bullet 4$
13. $\_=64 \div 8$

Represent the situation with an equation. Solve.
16. Marcie plants 42 tomato plants in 6 equal rows. How many plants are in each row?

Equation: $\qquad$
Answer: $\qquad$
18. There are 240 fewer teachers than students at Westside Middle School. There are 10 teachers. How many students are there?

## Equation:

$\qquad$
Answer: $\qquad$
17. There are 12 slices of toast on a tray. Roberto takes 2 slices. How many slices are on the tray now?

Equation: $\qquad$
Answer:
19. Al practiced the piano 10 hours this week and 5 hours last week. How many times as many hours did AI practice the piano this week than last week?

Equation: $\qquad$
Answer: $\qquad$
20. Stretch Your Thinking Mrs. Ortiz bought a tablecloth for $\$ 5$ and 6 napkins for $\$ 2$ each. What was the total cost?

Hint: Use parentheses if you need to.
Equation: $\qquad$
Answer: $\qquad$

## Homeworlk

For each situation, decide whether there is a constant rate. If yes, write the rate and complete the rate table.

1. Grandma Jackson has 5 plants in each row in her garden.

Is there a constant rate? $\qquad$
2. A large bag of potatoes costs $\$ 8$ at Season's Produce Store.

Is there a constant rate? $\qquad$
$\qquad$
Unit
Product

|  |  |
| :---: | :--- |
| 1 |  |
| 2 |  |
| 3 |  |
|  | + |

Product

|  |  |
| :---: | :---: |
| 1 | 7 |
| 2 | 14 |
| 3 | 21 |
| 4 | 28 |
| 5 | 35 |
| 6 | 42 |
| 7 | +7 |
| +7 |  |
| +7 |  |
| +7 |  |
| +7 |  |
| +7 |  |

3. Write a story for this rate table. Label the columns to tell your story.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Solve each Factor Puzzle.
4.

5.

6.


## Rememberthg

## Complete each Factor Puzzle.

1. 


2.

3.

4.

5.

6.


Represent the situation with an equation. Solve.
7. If Maria places 40 roses equally into 5 vases, how many roses will she put in each vase?

Equation: $\qquad$
Answer: $\qquad$
9. The school library has 400 fiction books. Fifty are paperback and the rest are hardcover. How many of the fiction books are hardcover?

Equation: $\qquad$
Answer: $\qquad$
8. Ben scored 24 points. Vince scored 8 points. How many fewer points did Vince score than Ben?

Equation: $\qquad$
Answer: $\qquad$
10. Julie buys shoes and a shirt. The shoes cost 5 times as much as the shirt. The shirt cost $\$ 6$. How much do the shoes cost?

Equation: $\qquad$
Answer: $\qquad$
11. Stretch Your Thinking Jake bought a notebook for $\$ 2$ and a package of pens for $\$ 5$. How much change did he get back from $\$ 10$ ?

Hint: Use parentheses if you need to.
Equation: $\qquad$
Answer: $\qquad$

## Homeworlk

For each rate situation, find the unit rate and write it using per. Make a rate table that includes the given information as the first row in the table. Continue making a scrambled rate table.

1. Aunt Suzy's rectangular garden has 40 carrot plants in the first 8 rows.


| Unit | Product |
| :---: | :---: |
|  | - |
|  |  |
| 1 |  |
|  | 25 |
|  | 15 |

3. Every week Noreen eats half a dozen oranges.
$\qquad$

| Unit | Product |
| :--- | :---: |
|  |  |
|  |  |
|  |  |
|  |  |

5. Jason saves $\$ 4$ every day so that he can buy a basketball hoop.


## Rememberting

## Complete each Factor Puzzle.

1. 


2.

3.

4.

5.

6.


Represent the situation with an equation. Solve.
7. In a parking lot, there are 6 rows of cars with 30 cars parked in each row. How many cars are in the lot?

Equation: $\qquad$
Answer: $\qquad$
9. The cafeteria sold 30 more oranges than apples. The cafeteria sold 270 oranges. How many apples did they sell?

Equation: $\qquad$
Answer: $\qquad$
8. Andrew jogged 24 miles today. This is 2 times as far as he jogged yesterday. How far did he jog yesterday?

## Equation:

$\qquad$
Answer: $\qquad$
10. Ed has 18 red goldfish. He has 6 times as many red goldfish as orange goldfish. How many orange goldfish does he have?

Equation: $\qquad$
Answer: $\qquad$
11. Stretch Your Thinking There are 3 stacks with 8 books each and 4 stacks with 9 books each. How many books are there in all?

Hint: Use parentheses if you need to.
Equation: $\qquad$
Answer:

## Homework

For each table, find the unit price. Then complete the table.

1. At Best Buy Fruits, 9 boxes of strawberries cost $\$ 36$. What is the unit price for 1 box? $\qquad$

| Number of <br> Boxes | Cost in <br> Dollars |
| :---: | :---: |
| 1 |  |
| 9 | 36 |
| 5 | 28 |
|  | 32 |
| 100 |  |

2. At Yummy Fruits, 6 boxes of strawberries cost $\$ 42$. What is the unit price for 1 box? $\qquad$

| Number of <br> Boxes | Cost in <br> Dollars |
| :---: | :---: |
| 1 |  |
| 6 | 42 |
| 10 | 21 |
|  | 63 |
|  | 14 |

3. a. For Exercises 1 and 2, what assumption did you have to make for these to be constant rate situations?
b. Is your assumption reasonable?
c. Describe a situation when the strawberries at Yummy Fruits might be a better buy than the strawberries at Best Buy Fruits.
d. The graph shows the three lines you graphed in this lesson. Each line shows the cost for a different kind of granola.

Describe where the line for the cost of strawberries at Best Buy Fruits and the line for the cost of strawberries at Yummy Fruits would go on this graph.


## Rememberting

## Complete each Factor Puzzle.

1. 


2.

3.

4.

5.

6.


Represent the situation with an equation. Solve.
7. A store had 360 bottles of water. Some of the bottles were sold. Then there were 150 bottles of water. How many bottles were sold?

Equation: $\qquad$
Answer: $\qquad$
9. A florist sold 4 fewer tulips than roses. The florist sold 80 roses. How many tulips did the florist sell?

Equation: $\qquad$
Answer: $\qquad$
8. There are 150 girls and 140 boys signed up for the after-school science club. How many students are signed up for the science club?

Equation: $\qquad$
Answer: $\qquad$
10. Matt's string is 15 inches long. Sabrina's string is 3 times as long as Matt's. How long is Sabrina's string?

## Equation:

$\qquad$
Answer: $\qquad$
11. Stretch Your Thinking Mario has 9 pictures to hang. He hangs 2 rows with 3 pictures each. How many pictures does he have left to hang? Hint: Use parentheses if you need to.

Equation: $\qquad$
Answer: $\qquad$

## Homework

1. Circle the unit rate in the table. Use the unit rate to complete the table. Draw the graph and show the unit rate triangle.

| Time | Distance |
| :---: | :---: |
| Seconds | Yards |
| 1 | 6 |
|  | 18 |
|  | 24 |
| 2 |  |



These rate tables show the speed of three different runners.
Fill in the missing values in each table.
2.

| Time | Distance |
| :---: | :---: |
| Seconds | Yards |
| 1 | 2 |
|  | 4 |
| 3 |  |
| 5 | 8 |

3. 

| Time | Distance |
| :---: | :---: |
| Seconds | Yards |
| 1 |  |
| 2 |  |
|  | 25 |
| 8 |  |
| 10 | 50 |

4. 

| Time | Distance |
| :---: | :---: |
| Seconds | Yards |
|  | 24 |
| 1 |  |
| 4 | 12 |
| 2 |  |
|  | 15 |

## Rememberting

## Complete each Factor Puzzle.

1. 


2.

3.

4.

5.

6.


Represent the situation with an equation. Solve.
7. A vendor has 80 more red balloons than yellow balloons. He has 20 yellow balloons. How many red balloons does he have?

Equation: $\qquad$
Answer: $\qquad$
9. Kerri buys 3 pens for $\$ 1.50$ each. She pays with a $\$ 10$ bill. How much change should she get back?

Equation: $\qquad$
Answer: $\qquad$
8. Sam works in a bakery. If he has 54 bagels and he puts 6 bagels in each bag, how many bags does he use?

## Equation:

$\qquad$
Answer: $\qquad$
10. A theater has 10 rows of seats with 8 seats in each row. If 28 people are seated, how many seats are empty?

Equation: $\qquad$
Answer: $\qquad$
11. Stretch Your Thinking A room has 9 tables with 6 chairs each and 7 tables with 8 chairs each. How many chairs are in the room altogether? Hint: Use parentheses if you need to.

Equation: $\qquad$
Answer:

## Homeworlk

Noreen and Tim plant carrots in their garden. They each plant rows at the same time. Noreen plants 4 carrot seeds in each row. Tim plants 9 carrot seeds in each row.

|  | N | T |
| :---: | :---: | :---: |
| Rows | 4 | 9 |
| 1 | 4 | 9 |
| 2 | 8 | 18 |
| 3 | 12 | 27 |
| 4 | 16 | 36 |
| 5 | 20 | 45 |
| 6 | 24 | 54 |
| 7 | 28 | 63 |



1. How are the tables alike? How are they different?
$\qquad$
$\qquad$
$\qquad$
$\qquad$
2. What are the numbers circled at the top of each table? $\qquad$
3. Fill in the numbers to the left and right of the ratio table to show Noreen's and Tim's constant increases.

Use the tables to answer each question.
4. Noreen has planted 12 carrot seeds. How many has Tim planted?
$\qquad$ carrot seeds

How many rows is this? $\qquad$ rows
5. Tim has planted 63 carrot seeds. How many has Noreen planted?

## carrot seeds

 How many rows is this? $\qquad$ rows
## Rememberfing

## Complete each Factor Puzzle.

1. 


2.

$\qquad$
3.


Fill in the missing values in each rate table.

4. | Number of <br> Pounds | Cost in <br> Dollars |
| :---: | :---: |
| 1 | 4 |
| 2 |  |
| 3 |  |
| 5 | 16 |
|  | 24 |
5. 
6. 

| Number of <br> Pounds | Cost in <br> Dollars |
| :---: | :---: |
| 1 | 7 |
| 2 | 28 |
|  | 35 |
| 10 | 700 |

Represent the situation with an equation. Solve.
Use parentheses if you need to.
7. Bob's Bakery sold 10 bags of bagels containing a dozen bagels each and 30 bags of bagels containing a half dozen each. How many bagels did the bakery sell in all?

Equation: $\qquad$
Answer: $\qquad$
8. Stretch Your Thinking Brendan lives 2 miles closer to the library than Jamal does. Jamal lives 1 mile farther from the library than Aisha does. Jamal lives 3 miles from the library. How much closer to the library is Brendan than Aisha?

Equation: $\qquad$
Answer: $\qquad$

## Homeworlk

Make a ratio table for each situation. Be sure to label the columns.

1. Noreen and Tim each plant groups of flowers in their gardens.

Noreen plants 3 in a group while Tim plants 5 in a group.
2. Grammy Suzy's recipe for summer salad is 2 cucumbers for every 3 tomatoes.
3. Royal purple paint color is made from 3 cans of red paint and 7 cans of blue paint.

Ratio Table 1


The linking unit is

Ratio Table 2


The linking unit is

Ratio Table 3


The linking unit is
4. Circle each ratio table below. Write numbers to show the two multiplication columns that are in each ratio table.
A.

|  |  |
| ---: | :---: |
| 7 | 3 |
| 14 | 6 |
| 21 | 9 |
| 28 | 12 |
| 35 | 15 |
| 42 | 18 |
| 49 | 21 |

B.

|  |  |
| ---: | ---: |
| 2 | 3 |
| 4 | 5 |
| 6 | 8 |
| 8 | 10 |
| 10 | 13 |
| 12 | 15 |
| 14 | 18 |

C.

|  |  |
| ---: | ---: |
| 9 | 4 |
| 18 | 8 |
| 27 | 12 |
| 36 | 16 |
| 45 | 20 |
| 54 | 24 |
| 63 | 28 |

D.

|  |  |
| :---: | :---: |
| 1 | 1 |
| 1 | 2 |
| 1 | 3 |
| 1 | 4 |
| 1 | 5 |
| 1 | 6 |
| 1 | 7 |

## Rememberfing

## Complete each Factor Puzzle.

1. 


2.

3.


Fill in the missing values in the rate table. Draw the graph.
4.

| Number of <br> Pounds | Cost in <br> Dollars |
| :---: | :---: |
| 1 |  |
| 2 |  |
| 3 | 6 |
|  | 8 |



Represent the situation with an equation. Solve.
Use parentheses if you need to.
5. Section $A$ in a stadium has 30 rows of seats with 20 seats in each row. Section B has 4 times as many seats as Section A. How many seats are in Section B?

Equation: $\qquad$
Answer: $\qquad$
6. Stretch Your Thinking A balloon vendor sold 225 balloons on Saturday. He sold red, yellow, and blue balloons. He sold 100 red balloons and 25 more red than blue. How many yellow balloons did he sell?

Equation: $\qquad$
Answer: $\qquad$

## Homework

## Use Factor Puzzles to solve these proportion problems.

Diana and Walter are twins who both do these activities for the same amount of time but at their own constant rates.

1. a. Diana read 15 pages and Walter read 35 pages. How many pages had Diana read when Walter had read 14 pages?
___ pages
b. Fill in the ratio table and circle the rows that make the Factor Puzzle.
2. Diana sold 35 tickets and Walter sold 56 tickets. How many tickets
had Walter sold when Diana had sold 56 tickets. How many tickets
had Walter sold when Diana had sold 15 tickets?
$\qquad$ tickets
3. Diana sliced 24 bananas while Walter sliced 16 bananas. When Diana had sliced 21 bananas, how many bananas had Walter sliced?
$\qquad$ bananas


- 
- 



D W

4. Walter drew 6 pictures while Diana drew 8 pictures. When Diana had drawn 28 pictures, how many had Walter drawn?
$\qquad$ pictures



## Rememberting

## Complete each Factor Puzzle.

1. 


2.

3.


Solve each rate problem.
4. Sam buys 3 pounds of apples for $\$ 6$.

What is the unit rate?
6. Marcus walks 9 miles in 3 hours. What is his unit rate?
5. Ashley earns $\$ 5$ per hour babysitting. How much will she earn in 3 hours?
7. Mrs. Dunn drives at a constant rate of 55 miles per hour for 2 hours. How far does she drive?

Represent the situation with an equation. Solve.
Use parentheses if you need to.
8. Jamie took out 4 books from the library. His sister took out 3 times as many. How many books did Jamie and his sister take out altogether?

Equation: $\qquad$
Answer: $\qquad$
9. There are 9 red apples in a bowl. There are 4 fewer green apples than red apples. How many apples are in the bowl?

## Equation:

$\qquad$
Answer: $\qquad$
10. Stretch Your Thinking In a video game, Lee scored 500 points. Andrew scored twice as many points as Lee. Ed scored 100 more points than Lee. How many more points did Andrew score than Ed?

Equation: $\qquad$
Answer: $\qquad$

Tell why the situation is a proportion or write the assumption that must be stated to make the problem a proportion problem.

## Use a Factor Puzzle to solve the problem.

1. To make a pale blue paint, Erica mixes 6 cans of blue and 10 cans of white. She has 35 cans of white paint. How many cans of blue does she need to get the same pale blue?
$\qquad$
$\qquad$

2. Central School has 6 printers and 14 computers. If East School has 28 computers, how many printers does it have?
$\qquad$

$\qquad$
3. Friendly Florist sells bunches with 16 daisies and 6 roses. Aunt Lynn wants a large bunch in the same ratio. If she gets 40 daisies, how many roses will she get?
$\qquad$
$\qquad$

4. The twins baked pancakes using 10 cups of mix and 15 eggs. Everyone wants more, but they only have 12 eggs left. How many cups of mix should they use?
$\qquad$
$\qquad$

## Rememberfing

## Complete each Factor Puzzle.

1. 


2.


Is the table a ratio table? Write yes or no. If yes, write the basic ratio at the top of the table.
4.

| $\bigcirc$ |  |
| :---: | :---: |
| 5 | 8 |
| 10 | 16 |
| 15 | 24 |
| 20 | 32 |
|  |  |

5. 

|  |  |
| ---: | ---: |
| $2:$ | 3 |
| $4:$ | 6 |
| $6:$ | 6 |
| $7:$ | 12 |
| $12:$ | 15 |

6. 

| 0 |
| :---: |
| $7:$ |
| $14:$ |
| $21:$ |
| 28 |
| $28:$ |
| $35:$ |

7. 

| O: |  |
| :---: | :---: |
| 6 |  |
| 12 |  |
| 20 |  |
|  |  |
| 24 |  |

Represent the situation with an equation. Solve.
Use parentheses if you need to.
8. The book Maria is reading has 50 pages. Her sister Abigail's book has 3 times as many pages. How many more pages are in Abigail's book than in Maria's book?

Equation: $\qquad$
Answer: $\qquad$
9. Stretch Your Thinking A nut mix contains three kinds of nuts. There are 5 ounces of almonds. The weight of the cashews is triple the weight of the almonds and the weight of the peanuts is 10 ounces more than the weight of the almonds. What is the weight of the mix?

Equation: $\qquad$
Answer: $\qquad$

## Homeworlk

## Show the Factor Puzzle for each proportion. Solve.

1. $18: 54=c: 42$
$c=$ $\qquad$
2. $27: 63:: 12: q$
$q=$ $\qquad$
3. $12: 50=a: 75$
$a=$ $\qquad$

Dear Math Students,
Today I was mixing blue paint and red paint to make purple paint. I mixed 14 cups of blue with 42 cups of red and I got a really nice purple color. I needed more paint. I had 12 more cups of red, so I used this Factor Puzzle to find out how much blue I should mix in. I got my answer, 36 cups.
So, I mixed in 36 cups of blue with the 12 cups of red and the purple color was not the same as the first batch.
Did I do something wrong? Can you help?

Your friend,
Puzzled Penguin

B R

14

4. Write a response to Puzzled Penguin.

## Rememberfing

## Complete each Factor Puzzle.

1. 


2.

$\qquad$

Circle each ratio table below. Write numbers to show the two multiplication columns that are in each ratio table.
4.

|  |
| :---: |
| 5 |$: \quad 7$

5. 

|  |  |  |
| ---: | :--- | :--- |
| 3 | $:$ | 7 |
| 6 | $:$ | 14 |
| 9 | $:$ | 21 |
| 12 | $:$ | 28 |
| 15 | $:$ | 35 |
| 18 | $:$ | 42 |
| 21 | $:$ | 49 |

6. 

|  | $:$ |  |
| :---: | :---: | :---: |
| 3 | $:$ | 4 |
| 3 | $:$ | 8 |
| 3 | $:$ | 12 |
| 3 | $:$ | 16 |
| 3 | $:$ | 20 |
| 3 | $:$ | 24 |
| 3 | $:$ | 28 |

7. 

|  |  |  |
| ---: | :--- | :--- |
| 2 | $:$ |  |
| 4 | $:$ | 5 |
| 6 | $:$ | 10 |
| 8 | $:$ | 20 |
| 10 | $:$ | 25 |
| 12 | $:$ | 30 |
| 14 | $:$ | 35 |

Represent the situation with an equation. Solve. Use parentheses if you need to.
8. Marna's display has 3 rows of stamps with 9 stamps in each row. Ned's display has 1 fewer row but 2 more stamps in each row. How many stamps are in Ned's display?

Equation: $\qquad$
Answer:
9. Stretch Your Thinking A fruit basket has 6 apples.

It has twice as many oranges as apples and twice as many apples as bananas. How many more oranges than bananas are there?

Equation: $\qquad$
Answer: $\qquad$

## Alomeworlk

1. Write a word problem for the proportion $6: 15=n: 35$.
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Solve.
2. $4: 7:: m: 42$
3. $3: d:: 27: 45$
4. What is the basic ratio for $12: 27$ ?

$$
m=
$$

$$
d=
$$

$\qquad$
5. The basic ratio for $120: 150$ is $\qquad$ 6. The basic ratio for $24: 56$ is $\qquad$
7. Danny fills each vase with 5 roses and 9 irises. How many irises will he use if he uses 30 roses?
8. Dede's cost ratio for large balloons to small balloons was $\$ 15$ to $\$ 6$. Her sister Fran's ratio was $\quad$ to $\$ 14$. How much did Fran pay for her large balloons?

## Remembering

## Complete each Factor Puzzle.

1. 


2.

$\qquad$
Complete each ratio table. Write the basic ratio.
4.

| $0:$ |
| :---: |
| $12:$ |
| $36: 63$ |
| $28: 14$ |
| $28:$ |
| $16:$ |
| $: \quad 42$ |
| $: 35$ |

5. 

| D: |  |
| :---: | :---: |
|  | : 35 |
|  | : 40 |
| 9 |  |
| 18 |  |
| 6 | : 10 |
|  | : 25 |
| 12 |  |

6. 

| 2 | $:$ |  |
| ---: | :--- | ---: |
| 4 | $:$ |  |
| 8 | $:$ |  |
|  | $:$ |  |
| 14 | $:$ | 21 |
|  | $:$ | 18 |
| 16 | $:$ |  |
| 10 | $:$ |  |

7. 

| $\bigcirc$ |  |
| :---: | :---: |
| : 14 |  |
| 8 |  |
| 42 |  |
| : 28 |  |
| 40 |  |
| 56 |  |
| 24 | : 21 |

Represent the situation with an equation. Solve.
Use parentheses if you need to.
8. Andy picked 5 tulips. Brianna picked 3 more tulips than Andy. Carley picked 16 tulips. How many times as many tulips did Carley pick than Brianna?

Equation: $\qquad$
Answer:
9. Stretch Your Thinking Mrs. Martinez bakes 5 pans of cornbread and cuts each pan of cornbread so that there are 3 rows with 4 pieces in each row. How many more pieces could she have gotten if she had cut each pan of cornbread so that there were 4 rows with 5 pieces in each row?

## Equation:

$\qquad$
Answer:

## Homework

Circle the number of the problem that is not a proportion problem. Solve each proportion problem.

1. $3: 5:: 21: r$
2. $b: 7$ :: 16:56
$b=$ $\qquad$
$\qquad$ 5. What is the basic ratio for $5: 15$ ? $\qquad$
3. In the zoo, there are 6 flamingos for every 8 ducks. If there are 20 ducks, how many flamingos are there?
4. Alice is delivering mail on Maple Street. She has letters for house \#4 and \#6. If she has letters for \#20, what other house does she have letters for?
5. Josh and Sally each bike at their own constant rates. Josh bikes 35 miles while Sally bikes 40 miles. If Sally bikes 16 miles, how far does Josh bike?
6. 9:24 :: 24:d

$$
d=
$$

$\qquad$

## Rememberthg

## Complete each Factor Puzzle.

1. 


2.

3.


Show the Factor Puzzle for each proportion. Solve.
4. $a: 18=35: 45$
5. $15: 12=b: 28$
6. $15: c=5: 2$
$a=$ $\qquad$

$$
b=
$$

$c=$ $\qquad$

Represent the situation with an equation. Solve. Use parentheses if you need to.
7. Yesterday a bakery made 360 bagels. They packed them in bags of 6 . They sold 45 bags. How many bags were left?

Equation: $\qquad$
Answer: $\qquad$
8. Al scored 250 points. This was 25 points more than Ben. Kim scored twice as many points as Ben. What was Kim's score?

Equation: $\qquad$
Answer: $\qquad$
9. Stretch Your Thinking On Wednesday, Felipe drove 150 miles.

This was 3 times the distance he drove on Monday and 40 miles more than he drove on Tuesday. How many miles did Felipe drive in the three days?

Equation: $\qquad$
Answer: $\qquad$

## Homeworlk

Use your reasoning skills to develop a set of data that will graph as a line. Write your data in the table below, and then plot the ordered pairs to verify that the data plot in a line.

| $x$ | $y$ |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |



## Rememberfing

## Complete each Factor Puzzle.

1. 



## - -

$\qquad$

Solve each proportion.
4. $24: 28=n: 35$
5. $16: b:: 10: 35$
6. $2: 9=8: c$

$$
n=
$$

$$
b=
$$

$c=$ $\qquad$
2.

3.


Write the basic ratio.
7. $36: 81$ $\qquad$ 8. $25: 40$ $\qquad$
9. $24: 64$ $\qquad$

Represent the situation with an equation. Solve.
Use parentheses if you need to.
10. Brian planted 6 rows of tulip bulbs with 5 bulbs in each row. This is 3 times as many bulbs as Ester planted. How many bulbs did Ester plant?

Equation: $\qquad$
Answer: $\qquad$
11. Tickets to the school play cost $\$ 6$ for adults and \$4 for students. How many more student tickets than adult tickets can Victoria buy for $\$ 24$ ?

Equation: $\qquad$
Answer: $\qquad$
12. Stretch Your Thinking Ali is 4 years younger than Bee. Cory is twice as old as Ali. Ali is 8 years old. How much older is Cory than Bee?

Equation: $\qquad$
Answer:

