

Mrs. Burkes' Fourth Grade Class

Complete at least 3 lessons on IReady; Reading and Math

Monday:

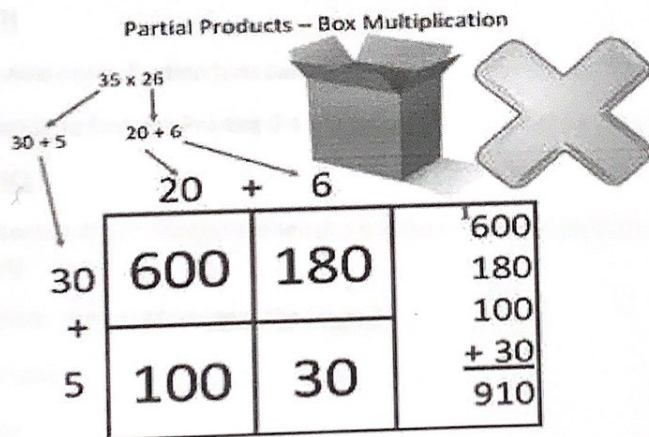
MATH

***Review multiplication facts daily!!!!** Please help your child memorize their multiplication facts. This is extremely important in 4th grade. Knowing their multiplication facts fluently opens the door to multi-digit multiplication and demystifies processes like long division and simplifying fractions. It lays the foundation for algebra.

*We are continuing to use arrays to solve multiplication equations. You can access the following YouTube video to demonstrate how to find partial products to find the product.

Video Link: <https://youtu.be/RSx20wLxctc>

*****Complete Envision Practice 5-3 Breaking Apart to Multiply**



SCIENCE

*Students will read the comprehension science assignment and answer the questions following the reading.

Complete "What are Simple Machines."

Tuesday:

MATH

***Review multiplication facts daily!!!!** Have your child call out the answers to multiplication facts are randomly.

****Complete Envision Practice 5-6 Reasonableness**

You can also allow your child to make their own multiplication flash cards. Students can use playing cards without the face cards to learn their multiplication facts.

Problem Solving

SCIENCE

*Students will read the comprehension science assignment and answer the questions following the reading.

Complete **"Simple Machines: The Pulley."**

Wednesday:

MATH

****Review multiplication facts daily!!!**

**** Complete Envision Practice 6-4 Multiplying 3 and 4 digit by 1 digit**

SCIENCE

*Students will read the comprehension science assignment and answer the questions following the reading.

Complete **"Simple Machines: The Screw."**

Thursday:

MATH

****Review multiplication facts daily!!!**

You can access the following You-Tube video to demonstrate how to find partial products to find the product.

Video Link: <https://youtu.be/DaQlieZH1kk>

**** Complete Envision Practice 8-1 Arrays and Multiplying 2 digit Numbers**

2 Digit x 2 Digit Box Method

Since we are multiplying 2 digit by 2 digit, we need to make a 2 by 2 box.

27 is = 20 + 7
65 is = 60 + 5

Multiply 60 x 20, then 60 x 7, then 20 x 5, then 5 x 7.

After you have found the partial products, add them all together.

Answer: 1,755

60	20	7
5	1200	420
	100	35

1200
420
100
+ 35
1,755

SCIENCE

*Students will read the comprehension science assignment and answer the questions following the reading.

Complete "What is Work?"

Friday:

MATH

** Practice multiplication facts over the weekend!

Introduction to division! Students will begin learning how to divide. Please watch the video complete Envision 9-1 Using Mental Math to Divide.

Video Link: <https://youtu.be/8Ft5iHhauJ0>

Name _____

Practice

5-3

Breaking Apart to Multiply

Find each product. You may use place-value blocks or draw a picture to help.

1. 4×43

2. 7×218

3. 5×13

4. 2×88

5. 4×334

6. 3×49

7. 6×42

8. 4×156

9. 3×25

10. 5×224

11. 2×54

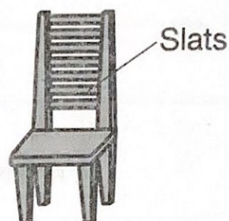
12. 4×337

13. 7×22

14. 5×216

15. 6×137

16. A carpenter makes chairs with slats that run across the back of the chairs as shown. Each chair uses 7 slats. He needs to make 24 chairs. How many slats must he make?



17. Each wood panel is 6 feet wide. Exactly 19 panels are needed to cover the walls of a room. How many feet of wood panels are needed?

18. Which is equal to 5×25 ?

A $(5 \times 5) + (2 \times 5)$

C 5×20

B $(5 \times 20) + (5 \times 1)$

D $(5 \times 20) + (5 \times 5)$

19. **Writing to Explain** How can you multiply 242×8 by breaking apart numbers?

Name _____

Practice

5-6

Problem Solving: Reasonableness

For 1 and 2, use reasonableness to decide if each answer is correct. Explain why the answer is reasonable or not. If the answer is incorrect, give the correct answer.

1. Johan is selling baseball cards for 12¢ each. He is selling 8 cards and says he'll make \$8.

2. Erika wants to give 5 stickers to everyone in her class. Her class sits in 4 rows of 7, and Erika says she'll need 140 stickers.

3. Viktor has 7 piles of coins with 63 coins in each. Which is a reasonable number of coins in Viktor's piles?

- A 300, because 7×63 is about $7 \times 40 = 280$.
B 360, because 7×63 is about $7 \times 50 = 350$.
C 441, because 7×63 is about $7 \times 60 = 420$.
D 500, because 7×63 is about $7 \times 70 = 490$.

Julie planted a sunflower and kept track of its height in a table. Use the table to solve 4 and 5.

4. How tall will the sunflower be after the 5th week if it continues to grow at the same rate?

5. **Writing to Explain** The world's largest sunflower was about 300 inches tall. Julie says her sunflower will be that tall after 3 months. Is Julie's answer reasonable? Explain why or why not. (Remember, there are about 4 weeks in one month.)

Height of Sunflower	
Week	Height in Inches
1	16
2	32
3	48
4	64
5	

Name _____

Practice

6-4

Multiplying 3- and 4-Digit by 1-Digit Numbers

Find each product. Estimate to check reasonableness.

1.
$$\begin{array}{r} 352 \\ \times 3 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 2,768 \\ \times 7 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 482 \\ \times 8 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 3,521 \\ \times 4 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 4,219 \\ \times 6 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 385 \\ \times 4 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 632 \\ \times 5 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 1,848 \\ \times 9 \\ \hline \end{array}$$

9. $7 \times 2,117 =$ _____

10. $6 \times 517 =$ _____

For 11 and 12, use the table at the right.

Runs Scored in 2010

Player	Runs Scored
A	128
B	113
C	142

11. If Player A scores the same number of runs each season, how many runs will he score in 5 seasons?

12. If Player C scores the same number of runs each season, how many runs will he score in 8 seasons?

13. How many bottles of water would Tim sell if he sold 1,734 bottles each week for 4 weeks?

A 5,886

B 6,836

C 6,928

D 6,936

14. If you know that $8 \times 300 = 2,400$, how can you find 8×320 ? Explain.

Name _____

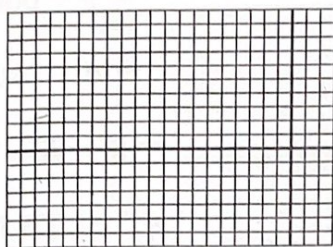
Practice

8-1

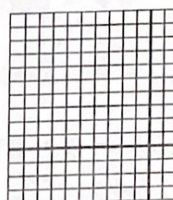
Arrays and Multiplying 2-Digit Numbers

Use the grid to find each product.

1. 17×23



2. 14×12



Complete the table. Then find each product.

3. 31×19

	10	9
30		
1		

4. 26×22

	20	2
20		
6		

5. 33×14

	10	4
30		
3		

6. $24 \times 57 =$ _____

7. $44 \times 48 =$ _____

8. A red kangaroo can cover 40 feet in 1 jump. How many feet can the red kangaroo cover in 12 jumps? _____

9. Barb exercises for 14 hours in 1 week. How many hours does she exercise in 32 weeks?

A 496 hours B 448 hours C 420 hours D 324 hours

10. **Writing to Explain** How is breaking apart the problem 16×34 like solving four simpler problems?

Name _____

Practice

9-1

Using Mental Math to Divide

Divide. Use mental math.

- | | |
|----------------------------|----------------------------|
| 1. $250 \div 5 =$ _____ | 2. $1,400 \div 2 =$ _____ |
| 3. $300 \div 5 =$ _____ | 4. $1,600 \div 4 =$ _____ |
| 5. $240 \div 8 =$ _____ | 6. $3,600 \div 4 =$ _____ |
| 7. $1,600 \div 2 =$ _____ | 8. $270 \div 3 =$ _____ |
| 9. $4,200 \div 7 =$ _____ | 10. $640 \div 8 =$ _____ |
| 11. $2,000 \div 5 =$ _____ | 12. $320 \div 8 =$ _____ |
| 13. $1,200 \div 2 =$ _____ | 14. $1,600 \div 8 =$ _____ |

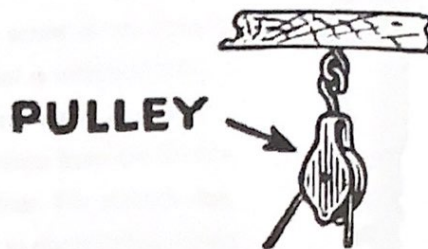
The fourth grade performed a play based on the story of Cinderella. There was one chair for each person present.

15. On Friday, 140 people came to the play. The chairs in the auditorium were arranged in 7 equal rows. How many chairs were in each row? _____
16. There were 8 equal rows set up for Saturday's performance. There were 240 people at the play on Saturday. How many chairs were in each row? _____
17. Which is the quotient of $5,600 \div 8$?
A 40 B 400 C 70 D 700
18. **Writing to Explain** Explain why the following answer is not correct: $1,000 \div 5 = 2,000$.

Name: _____

Simple Machines: The Pulley

There are six simple machines. They make it easier for us to do work. A wheel pulley is one of the six simple machines. A pulley is a wheel with a rope wrapped around it. The wheel has a groove around the edge to hold the rope in place. You can attach one end of the rope to a heavy object that you want to lift. You will pull on the other end of the rope to lift the heavy object. Pulleys make work easier by changing the direction of the force needed to do work. It is hard to lift a heavy object up into the air. It is easier to pull the same object down to the ground. This is because of the force of gravity. Gravity is the force that pulls objects down to the Earth. Gravity helps to make work easier when you use a pulley. You can also use more than one pulley at a time to make the work even easier. The weight will feel lighter with each pulley that you use. If you use two pulleys, it will feel like you are pulling one-half as much weight. If you use four pulleys, it will feel like you are pulling one-fourth as much weight! The weight will be easy to move, but you will have more rope to pull with each pulley that you add. You will pull twice as much rope with two pulleys. You will pull four times as much rope with four pulleys.



Simple Machines: The Pulley

Questions

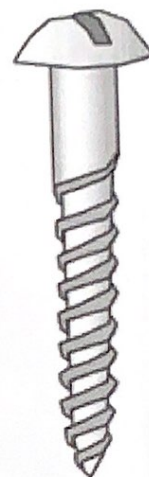
1. What is a pulley?

2. A pulley makes work easier because it _____.
 A. changes the direction of the force needed to do work
 B. uses a wheel
 C. makes the weight lighter
 D. works against gravity
3. Pulleys use the force of _____ to make work easier.
 A. motion
 B. inertia
 C. momentum
 D. gravity
4. Using three pulleys to lift a heavy object will make it feel like you are pulling _____ as much weight.
 A. one-thirtieth
 B. one-third
 C. one-half
 D. three times

Name: _____

Simple Machines: The Screw

There are six simple machines. They make it easier for us to do work. The screw is one kind of simple machine. Screws help us hold things together. A screw is a long post that is wrapped with metal threads. A screw is actually a kind of inclined plane. It is an inclined plane that is wrapped around a cylinder. If you follow the threads on a screw, they will form a long ramp from the bottom of the screw to the top of the screw. The threads on a screw may be close together. The threads may be farther apart. A screw with threads that are close together makes work easy to do. It forms a long inclined plane. The work is easy to do, but you will have to turn the screw many times. A screw with threads that are farther apart forms a shorter inclined plane. The work is harder to do, but you will not have to turn the screw as many times.



Simple Machines: The Screw

Questions

- _____ 1. A screw is _____.
 - A. a kind of simple machine
 - B. a kind of inclined plane
 - C. a long post wrapped with metal threads
 - D. all of the above

- _____ 2. A screw helps us _____.
 - A. cut things into smaller pieces
 - B. by making things easier to carry
 - C. hold things together
 - D. to pry things apart

3. The threads on a screw form a/an _____ from the bottom of the screw to the top of the screw.

- _____ 4. A screw with threads that are close together _____.
 - A. makes the work easier to do
 - B. makes the work harder to do
 - C. means that you will not have to turn the screw as many times as a screw with threads that are farther apart
 - D. all of the above

Name: _____

5. _____ on a screw determine how easy the work is to do.

Write four words to describe this rocket.

1. _____

2. _____

3. _____

4. _____

Use one or more of these words also:

shiny

fast

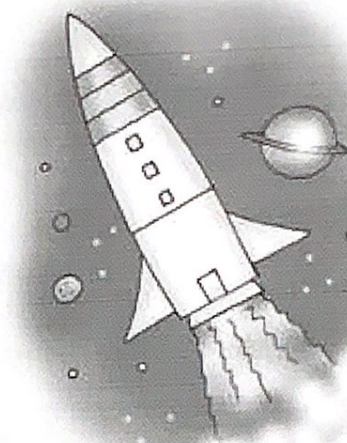
exploring

fiery

flaming

pointed

Write a sentence to describe the picture.
Use some of the above words.



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$$82 - 2 = \underline{\hspace{2cm}}$$

Write a fraction to represent what is shaded.



What temperature is ten degrees below freezing in Celsius?

How many days are in May?

$$\begin{array}{r} 45 \\ - 37 \\ \hline \end{array}$$

word root **fract** can mean **break**

fraction, fracture, infraction

Name: _____

What Is Work?

What do you think work is? You might think that taking a test is work. But scientists have something very specific in mind when they use the word "work." **Work** is what is done whenever a force makes an object move some distance.



A **force** is a push or a pull. A force can cause an object to move that was standing still before the force acted on it. A force can change the way an object moves.

Changing the direction of the force can make the object move in a different direction. You can also change the speed of an object. You can make an object move faster by using more force.

You need different amounts of force to move different objects. The heavier the object, the more force you need to move it. It would take more force to move a book than to move a piece of paper.

The amount of work you do depends on how much force you use. It also depends on how far the object moves.

Suppose you went outside and lifted a big rock. You would be doing work when you used force to make the rock move any distance. Now suppose you lifted several rocks the same distance that you lifted the first one. You would use more force to lift several rocks. You do more work if you use more force to move something the same distance.

If you carried the first rock along with you on a long walk, you would be doing more work than if you only moved it an inch or two. More work is done when the same amount of force moves an object a greater distance.

You can move around because you have **energy**-the ability to do work. You use energy whenever you use force to move an object through a distance. The more work you do, the more energy you need. Your body releases energy from the food you eat. You use this energy to do work. All objects that have energy can do work.

Suppose you are standing next to a brick wall, and you are pushing against the wall as hard as you can. Your arms are getting tired from pushing so hard! Are you doing work?

No, you are not. You are not making the brick wall move any distance. You did not do any work.

Name: _____

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What Is Work?

Questions

- _____ 1. _____ is done whenever a force moves an object over some distance.
A. force
B. energy
C. work
- _____ 2. All objects that have _____ can do work.
A. energy
B. force
C. work
- _____ 3. _____ is a push or a pull.
A. energy
B. work
C. force
- _____ 4. A force:
A. can change the way an object moves
B. can cause a still object to begin moving
C. can change the speed or direction of a moving object
D. all of the above
- _____ 5. _____ is used whenever work is done.
A. energy
B. work
C. force
- _____ 6. You do more work when you move one object than if you move several objects the same distance.
A. false
B. true
- _____ 7. You do more work when you move an object a farther distance than when you move the same object a shorter distance.
A. true
B. false
- _____ 8. If you are sitting still at school reading a book, you are doing work.
A. true
B. false

Write the number that is one thousand more than 6,753.

Write the greatest possible 3-digit number using only 2 different numbers.

How many minutes are there from 3:45 p.m. until 4:00 p.m.?

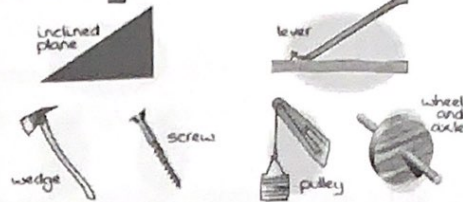
Name: _____

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What Are Simple Machines?

Suppose you needed to move an object. You might use tools to help you. Machines are tools that use energy to do work. **Simple machines** are machines with a few or no moving parts. Machines make work easier. You probably have used several of the six different kinds of simple machines.

Simple Machines



Pretend you need to lift a heavy object like a big rock. You could use a lever to help you. A **lever** is a simple machine made of a board that is used to move objects. A seesaw or teeter-totter is really a lever. The middle of the seesaw has something under it to hold it up. This is called the fulcrum. The lever moves back and forth on the fulcrum. On a seesaw, each person takes turns lifting the other person.

To lift a rock with a lever, you would need a board to be the lever and a fulcrum to hold it up. Another rock can be a fulcrum. The object being lifted is called the load. You can lift a load most easily by moving the fulcrum close to the load. You move the load by pushing down on the end of the lever.

A hammer is another kind of lever. A hammer pulls a nail out of a piece of wood. Where is the fulcrum on a hammer?

Another kind of simple machine is an inclined plane. An **inclined plane** has a flat surface that is higher on one end. A ramp is an inclined plane that helps move objects. Often you see a ramp used to load or unload a truck. You can use an inclined plane to help move an object to a higher or lower place.

You might see inclined planes in other places. A slanted road is an inclined plane. A ramp for wheelchairs helps them move more easily into and out of buildings. Your bathtub is an inclined plane. The back of the bathtub is higher than the drain. This helps all the water to run down the drain after a bath.

A **wedge** is a simple machine that is used to push two objects apart. It is also used to cut or split an object. An ax is a wedge that splits wood. The front of a boat is a wedge that splits the water so the boat can pass through it more easily. A knife is a wedge that has a sharp edge to cut as it wedges the two pieces apart.

A **screw** is another simple machine that is used to hold objects together. A screw is really an inclined plane that is wrapped around a rod. A metal screw can hold two pieces of wood or metal together. A jar lid is a large screw. The ridges inside the lid of the jar are the ridges of the screw. These ridges hold the jar and the lid together.

A **wheel and axle** is a simple machine made of a rod attached to the center of a wheel. A wheel and axle is a special kind of lever that moves or turns objects. The axle, or rod, turns when you put force on the wheel.

Name: _____

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You probably have seen a wheel and axle on cars, roller skates, and wagons. A doorknob also is a wheel and axle. On a bicycle, you might see gears. Gears are wheels with jagged edges like teeth. The teeth help the wheels turn each other. You can find gears in bicycles, cars, and many other machines.

A **pulley** is a simple machine made of a wheel and a rope. The rope fits around the edge of the wheel. A person pulls down on the rope to raise the load. You can use a pulley to move a load up, down, or sideways.

A pulley can move an object to a place that is hard to reach. For example, you might use a pulley to raise a flag to the top of a pole. A pulley also can help move a heavy load.

People use tools to make work easier. People have been using simple machines for at least 5,000 years. There are six kinds of simple machines. They can be used together to make different kinds of machines.

What Are Simple Machines?

Questions

1. Name the six kinds of simple machines.

- _____ 2. Which kind of simple machine needs a fulcrum?

A. screw
B. wedge
C. inclined plane
D. lever

- _____ 3. Which other kind of simple machine is a special kind of lever?

A. wheel and axle
B. screw
C. pulley
D. wedge

- _____ 4. Which other kind of simple machine is a special kind of inclined plane?

A. screw
B. wedge
C. pulley
D. wheel and axle

Name: _____

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- _____ 5. _____ are wheels with jagged edges like teeth.
- A. screws
 - B. wedges
 - C. gears
 - D. simple machines
- _____ 6. Suppose you needed to move a load sideways and upward. Which simple machine could you use?
- A. wheel and axle
 - B. wedge
 - C. screw
 - D. pulley

In the equation $23 \times 470 = 10,810$, which number is the product?

Name the shape with three sides and three angles.

C, G, _____, O, S, W

triple 21 =

Find the product of 7 and 2.

double 40 =

3, m, 9, 1, 3, m, 9, 1,
3, m, 9, 1, 3, _____, 9,
1, 3

What is the sum of 4 and 59?

Write the least possible 5-digit number using only 3 different numbers.

Name _____

Practice

5-3

Breaking Apart to Multiply

Find each product. You may use place-value blocks or draw a picture to help.

1. 4×43

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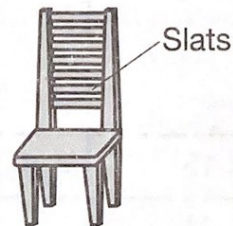
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Julie planted a sunflower and kept track of its height in a table. Use the table to solve **4** and **5**.

- 4.** How tall will the sunflower be after the 5th week if it continues to grow at the same rate?

- 5. Writing to Explain** The world's largest sunflower was about 300 inches tall. Julie says her sunflower will be that tall after 3 months. Is Julie's answer reasonable? Explain why or why not. (Remember, there are about 4 weeks in one month.)

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Week	Height in Inches
1	16
2	32
3	48
4	64
5	

Name _____

Practice

6-4

Multiplying 3- and 4-Digit by 1-Digit Numbers

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Name _____

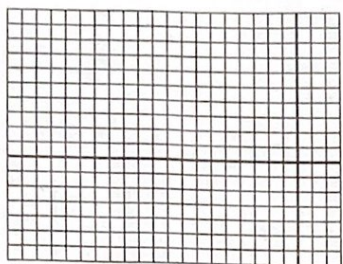
Practice

8-1

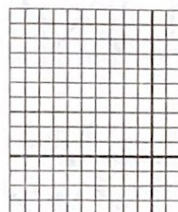
Arrays and Multiplying 2-Digit Numbers

Use the grid to find each product.

1. 17×23



2. 14×12



Complete the table. Then find each product.

3. 31×19

	10	9
30		
1		

4. 26×22

	20	2
20		
6		

5. 33×14

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30		
3		

6. $24 \times 57 =$ _____

7. $44 \times 48 =$ _____

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D 324 hours

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Name _____

Practice

9-1

Using Mental Math to Divide

Divide. Use mental math.

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| 3. $300 \div 5 =$ _____ | 4. $1,600 \div 4 =$ _____ |
| 5. $240 \div 8 =$ _____ | 6. $3,600 \div 4 =$ _____ |
| 7. $1,600 \div 2 =$ _____ | 8. $270 \div 3 =$ _____ |
| 9. $4,200 \div 7 =$ _____ | 10. $640 \div 8 =$ _____ |
| 11. $2,000 \div 5 =$ _____ | 12. $320 \div 8 =$ _____ |
| 13. $1,200 \div 2 =$ _____ | 14. $1,600 \div 8 =$ _____ |

The fourth grade performed a play based on the story of Cinderella. There was one chair for each person present.

15. On Friday, 140 people came to the play. The chairs in the auditorium were arranged in 7 equal rows. How many chairs were in each row? _____
16. There were 8 equal rows set up for Saturday's performance. There were 240 people at the play on Saturday. How many chairs were in each row? _____
17. Which is the quotient of $5,600 \div 8$?
- A 40 B 400 C 70 D 700
18. **Writing to Explain** Explain why the following answer is not correct: $1,000 \div 5 = \underline{2,000}$.
