

**Students Entering
Sixth Grade**

Summer Math Packet

Name _____

Hello Mathematicians! This summer packet was developed to provide you with an opportunity to review grade level math objectives and to improve your math performance. This packet is designed to be worked on for 15-30 minutes each day throughout the summer. We hope these review sheets help to build anticipation for new learning and gives you confidence in your abilities so that you are well prepared for the next level of math. This packet will help ease the transition and help you reinforce skills that are needed prior to the start of sixth grade to ensure future success. 😊

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Name _____

Review

2

Adding and Subtracting Decimals

Find $1.7 + 2.45$.

Find $36.57 - 4.6$.

Line up the decimal points.

$$\begin{array}{r} \downarrow \quad \quad \uparrow \\ 1.7 \quad \quad 1.70 \leftarrow \text{Write zeros to} \\ + 2.45 \quad + 2.45 \quad \text{show place value.} \\ \hline 4.15 \\ \uparrow \text{Place decimal point} \\ \text{in answer.} \end{array}$$

Line up the decimal points.

$$\begin{array}{r} \downarrow \quad \quad \uparrow \quad \uparrow \\ 36.57 \quad 36.57 \leftarrow \text{Write zeros to} \\ - 4.6 \quad - 4.60 \quad \text{show place value.} \\ \hline 31.97 \\ \uparrow \text{Place decimal point} \\ \text{in answer.} \end{array}$$

Find each sum or difference.

1. $\begin{array}{r} \downarrow \\ 2.65 \\ + 13.30 \\ \hline \end{array}$

2. $\begin{array}{r} \downarrow \\ 14.10 \\ - 3.05 \\ \hline \end{array}$

3. $\begin{array}{r} 744 \\ + 36.2 \\ \hline \end{array}$

4. $\begin{array}{r} 9 \\ - 0.6 \\ \hline \end{array}$

5. $\begin{array}{r} 8.97 \\ + 66 \\ \hline \end{array}$

6. $\begin{array}{r} 100 \\ - 0.22 \\ \hline \end{array}$

7. $\begin{array}{r} 6.8 \\ + 237.29 \\ \hline \end{array}$

8. $\begin{array}{r} 0.5 \\ - 0.23 \\ \hline \end{array}$

9. $15.4 - 8 = \underline{\hspace{2cm}}$

10. $3 - 2.54 = \underline{\hspace{2cm}}$

11. $1.34 + 4.1 = \underline{\hspace{2cm}}$

12. $133.01 - 5.6 = \underline{\hspace{2cm}}$

13. $448 + 1.75 + 80.3 = \underline{\hspace{2cm}}$

14. $12.3 + 0.61 + 100 = \underline{\hspace{2cm}}$

15. On the 3-days of their vacation, the Davis family traveled 417 mi, 45.3 mi, and 366.9 mi. How far did they travel all together?

16. Etta bought a calculator for \$15. Glenn found the same model for \$9.79. How much more did Etta pay than Glenn did?

Name _____

Review
4

Multiplying with Decimals

Find 4.3×2.7 .

<p><i>Multiply as you would with whole numbers.</i></p> $\begin{array}{r} 2 \\ 4.3 \\ \times 2.7 \\ \hline 301 \\ 860 \\ \hline 1161 \end{array}$	<p><i>Count the number of decimal places in both factors. The total is the number of decimal places in the product.</i></p> $\begin{array}{rcl} 4.3 & \leftarrow & 1 \text{ decimal place} \\ \times 2.7 & \leftarrow & + 1 \text{ decimal place} \\ \hline 11.61 & \leftarrow & 2 \text{ decimal places} \end{array}$
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Find each product.

1.
$$\begin{array}{r} 14 \\ \times 8.8 \\ \hline 112 \\ 1120 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 1.6 \\ \times 9 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 0.4 \\ \times 3.2 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 0.05 \\ \times 0.3 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 2.15 \\ \times 8.3 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 3.3 \\ \times 0.12 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 0.51 \\ \times 4.2 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 1.35 \\ \times 13 \\ \hline \end{array}$$

9. $23 \times 0.47 =$ _____

10. $0.9 \times 5 =$ _____

11. $168 \times 2.25 =$ _____

12. $0.8 \times 0.11 =$ _____

13. $20 \times 20.2 =$ _____

14. $4.9 \times 0.3 =$ _____

15. A roll of paper towels contained 250 sheets.

Each sheet was 8.75 inches long. How long was the roll? _____

16. Tania bought 3 new sweaters. Each sold for \$19.99.

How much did she spend? _____

Name _____

Review

6

Dividing with Decimals

Find $36.8 \div 16$.

<div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center;"> $\begin{array}{r} \downarrow \\ 2. \\ 16 \overline{) 36.8} \end{array}$ </div> <div style="margin-left: 20px;"> <p>Place the decimal point.</p> <p>← Think: $20 \overline{) 40}$</p> <p>Try 2 in the quotient.</p> </div> </div>	<div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center;"> $\begin{array}{r} 2.3 \\ 16 \overline{) 36.8} \\ \underline{-32} \\ 48 \\ \underline{-48} \\ 0 \end{array}$ </div> <div style="margin-left: 20px;"> <p>Multiply 2×16.</p> <p>Subtract. Bring down 8.</p> <p>Multiply 3×16.</p> <p>Subtract.</p> </div> </div>
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Find each quotient.

1. $6 \overline{) 13.8}$

$$\begin{array}{r} 2. \\ -12 \\ \hline 18 \\ -18 \\ \hline 0 \end{array}$$

2. $6 \overline{) 131.4}$

3. $9 \overline{) 141.3}$

4. $5 \overline{) 388.5}$

5. $7 \overline{) 669.2}$

6. $28 \overline{) 263.2}$

7. $41 \overline{) 274.7}$

8. $7 \overline{) 34.23}$

9. $269.12 \div 8 =$ _____

10. $311.56 \div 4 =$ _____

11. $2,229.62 \div 46 =$ _____

12. $1,449.09 \div 81 =$ _____

13. A photographer bought 36 rolls of film for \$136.44.
What was the price of one roll?

14. Four students each ran 100 m in a 400-m relay race.
The team's total time was 49.44 sec. Find the average
time of each runner.



Name _____

Review
10

Adding and Subtracting Fractions

Find $\frac{2}{3} + \frac{1}{6}$.

Find $\frac{1}{4} - \frac{1}{5}$.

3	6	9	12	15
6	12	18	24	30

Multiples of 3

Multiples of 6

The least common denominator is 6.

Write equivalent fractions. $\frac{2}{3} = \frac{4}{6}$

Add.
$$\begin{array}{r} + \frac{1}{6} = \frac{1}{6} \\ \hline \frac{5}{6} \end{array}$$

4	8	12	16	20
5	10	15	20	25

Multiples of 4

Multiples of 5

The least common denominator is 20.

Write equivalent fractions. $\frac{1}{4} = \frac{5}{20}$

Subtract.
$$\begin{array}{r} - \frac{1}{5} = \frac{4}{20} \\ \hline \frac{1}{20} \end{array}$$

Find each sum or difference.

1. $\frac{1}{4} + \frac{2}{3} =$ _____

4			
3			

2. $\frac{11}{12} - \frac{5}{6} =$ _____

12			
6			

3. $\frac{1}{3} + \frac{4}{9} =$ _____

4. $\frac{3}{7} + \frac{2}{7} =$ _____

5. $\frac{11}{12} - \frac{5}{12} =$ _____

6. $\frac{1}{2} + \frac{1}{3} =$ _____

7. $\frac{1}{3} - \frac{1}{5} =$ _____

8. $\frac{3}{8} - \frac{1}{6} =$ _____

9. $\frac{3}{5} + \frac{3}{10} =$ _____

10. $\frac{1}{2} + \frac{2}{5} =$ _____

11. $\frac{2}{3} - \frac{1}{4} =$ _____

12. Meg practiced the piano for $\frac{5}{12}$ hr. She did homework for $\frac{3}{4}$ hr. How much longer did she do homework than she practiced the piano?
- _____

Name _____

Adding Mixed Numbers

R 4-5

To add mixed numbers, you can add the fractional parts to the whole number parts, and then simplify.

Find $2\frac{2}{4} + 3\frac{1}{4}$.

The fractions have a common denominator. Add the fractions. Then add the whole numbers.

$$\begin{array}{r} 2\frac{2}{4} \\ + 3\frac{1}{4} \\ \hline 5\frac{3}{4} \end{array}$$

Find $3\frac{2}{3} + 4\frac{1}{9}$.

Write equivalent fractions with the LCD.

$$\begin{array}{r} 3\frac{2}{3} = 3\frac{6}{9} \\ + 4\frac{1}{9} = 4\frac{1}{9} \\ \hline \end{array}$$

Add the whole numbers.
Add the fractions.
Simplify if possible.

$$\begin{array}{r} 3\frac{6}{9} \\ + 4\frac{1}{9} \\ \hline 7\frac{7}{9} \end{array}$$

Find $4 + 3\frac{3}{5}$.

Add the whole numbers; then add the fraction.

$$\begin{array}{r} 4 \\ + 3\frac{3}{5} \\ \hline 7\frac{3}{5} \end{array}$$

Find each sum. Simplify your answer.

1. $2\frac{1}{5} + 2\frac{3}{5} =$ _____ 2. $4\frac{2}{3} + 1\frac{1}{6} =$ _____

3. $5\frac{3}{5} + \frac{3}{10} =$ _____ 4. $8\frac{5}{8} + 1\frac{5}{12} =$ _____

5. $6\frac{1}{4} + 11\frac{3}{8} =$ _____ 6. $7 + 8\frac{1}{3} =$ _____

7. In 2001, the men's indoor pole vault record was $20\frac{1}{6}$ ft.
The women's record for the indoor pole vault was $15\frac{5}{12}$ ft.
What is the combined height of the two records? _____

8. **Writing in Math** How high is a stack of library books if one book is $1\frac{3}{8}$ in. high, the second book is $1\frac{5}{6}$ in. high, and the third is $2\frac{1}{3}$ in. high? Explain how you solved this problem.

Name _____

**Review
12**

Subtracting Mixed Numbers

Subtract $3\frac{2}{3} - 2\frac{1}{6}$.

Write equivalent fractions.	Subtract the fractions.	Subtract the whole numbers. Simplify.
$\begin{array}{r} 3\frac{2}{3} = 3\frac{4}{6} \\ - 2\frac{1}{6} = 2\frac{1}{6} \\ \hline \end{array}$ <p>The LCD of 3 and 6 is 6.</p>	$\begin{array}{r} 3\frac{2}{3} = 3\frac{4}{6} \\ - 2\frac{1}{6} = 2\frac{1}{6} \\ \hline 1\frac{3}{6} \\ \hline \end{array}$	$\begin{array}{r} 3\frac{2}{3} = 3\frac{4}{6} \\ - 2\frac{1}{6} = 2\frac{1}{6} \\ \hline 1\frac{3}{6} = 1\frac{1}{2} \end{array}$

Find each difference. Simplify.

1.
$$\begin{array}{r} 3\frac{1}{3} = 3\frac{5}{15} \\ - 2\frac{1}{5} = 2\frac{3}{15} \\ \hline \end{array}$$

2.
$$\begin{array}{r} 2\frac{1}{3} = 2\frac{2}{6} \\ - 1\frac{1}{6} = 1\frac{1}{6} \\ \hline \end{array}$$

3.
$$\begin{array}{r} 3\frac{2}{3} \\ - 2\frac{1}{3} \\ \hline \end{array}$$

4.
$$\begin{array}{r} 6\frac{5}{8} \\ - 2\frac{1}{8} \\ \hline \end{array}$$

5.
$$\begin{array}{r} 3\frac{7}{10} \\ - 1\frac{2}{5} \\ \hline \end{array}$$

6.
$$\begin{array}{r} 7\frac{7}{8} \\ - 2\frac{3}{4} \\ \hline \end{array}$$

7.
$$\begin{array}{r} 3\frac{3}{4} \\ - 2\frac{1}{6} \\ \hline \end{array}$$

8.
$$\begin{array}{r} 5\frac{5}{6} \\ - 1\frac{1}{8} \\ \hline \end{array}$$

9. $2\frac{2}{3} - 1\frac{1}{4} = \underline{\hspace{2cm}}$

10. $4\frac{3}{4} - 4\frac{2}{5} = \underline{\hspace{2cm}}$

11. $2\frac{1}{3} - 1\frac{2}{3} = \underline{\hspace{2cm}}$

12. $4\frac{4}{9} - 3\frac{2}{3} = \underline{\hspace{2cm}}$

13. $3\frac{3}{8} - 2\frac{5}{6} = \underline{\hspace{2cm}}$

14. $5\frac{1}{3} - 2\frac{5}{8} = \underline{\hspace{2cm}}$

15. Greg found two rocks for his collection. One weighed $4\frac{1}{4}$ lb and the other weighed $2\frac{7}{8}$ lb. Find the difference in weights.

Name _____

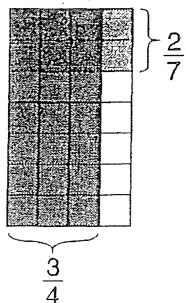
Multiplying Fractions

R 5-2

Find $\frac{3}{4} \times \frac{2}{7}$.

One Way

Draw a picture. Simplify if possible.



6 of the 28 squares have overlapping shading.

So, $\frac{3}{4} \times \frac{2}{7} = \frac{6}{28}$.

Simplify $\frac{6}{28}$ to $\frac{3}{14}$.

Another Way

Multiply the numerators and denominators. Simplify if possible.

$$\begin{aligned} \frac{3}{4} \times \frac{2}{7} \\ = \frac{3 \times 2}{4 \times 7} = \frac{6}{28} \\ = \frac{3}{14} \end{aligned}$$

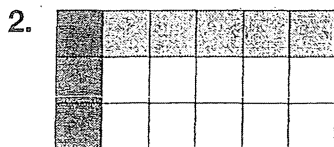
Simplify First

Find the GCF of any numerator and any denominator.

The GCF of 2 and 4 is 2. Divide 2 and 4 by the GCF.

$$\frac{3}{\cancel{4}^2} \times \frac{\cancel{2}_1}{7} = \frac{3}{14}$$

Write an equation for each picture.



Find each product. Simplify if possible.

3. $\frac{6}{8} \times \frac{1}{3} =$ _____

4. $\frac{5}{6} \times \frac{7}{10} =$ _____

5. $\frac{4}{5} \times \frac{3}{8} =$ _____

6. $\frac{1}{2} \times \frac{4}{9} =$ _____

7. **Number Sense** Can you simplify before multiplying $14 \times \frac{25}{27}$? Explain.

Name _____

Multiplying Mixed Numbers

R 5-4

How to find the product of two mixed numbers:

Find $3\frac{2}{3} \times 4\frac{1}{2}$.

Step 1

Estimate by rounding.

$$\begin{array}{r} 3\frac{2}{3} \times 4\frac{1}{2} \\ \downarrow \quad \downarrow \\ 4 \times 5 = 20 \end{array}$$

Then write each mixed number as an improper fraction.

$$\begin{array}{r} 3\frac{2}{3} \times 4\frac{1}{2} \\ \downarrow \quad \downarrow \\ \frac{11}{3} \times \frac{9}{2} \end{array}$$

Step 2

Look for common factors and simplify.

$$\frac{11}{\cancel{3}_1} \times \frac{\cancel{9}^3}{2} = \frac{11}{1} \times \frac{3}{2}$$

Step 3

Multiply. Write the product as a mixed number.

$$\frac{11}{1} \times \frac{3}{2} = \frac{33}{2} = 16\frac{1}{2}$$

$16\frac{1}{2}$ is close to 20, so the answer is reasonable.

Find each product. Simplify if possible.

1. $2\frac{3}{4} \times 3\frac{1}{2} =$ _____

2. $2\frac{1}{5} \times 2\frac{2}{3} =$ _____

3. $6 \times 3\frac{1}{4} =$ _____

4. $1\frac{2}{5} \times 3\frac{1}{4} =$ _____

5. $4\frac{1}{2} \times 16 =$ _____

6. $1\frac{3}{8} \times 2\frac{1}{2} =$ _____

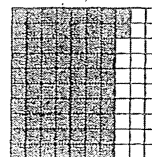
7. **Number Sense** Is $2 \times 17\frac{5}{6}$ greater than or less than 36? Explain.

Name _____

Fractions, Decimals, and Percents

R 7-2

Fractions, decimals, and percents all name parts of a whole. The grid to the right has 72 out of 100 squares shaded.



72 out of 100 are shaded. As a fraction, that is $\frac{72}{100}$.
As a decimal, that is 0.72. As a percent, that is 72%.

Write 40% as a fraction and decimal.

$$40\% = \frac{40}{100} = 0.40$$

The decimal point moves two places to the left.

Write 0.47 as a fraction and percent.

$$0.47 = \frac{47}{100} = 47\%$$

Write 0.3% as a fraction and decimal.

$$0.3\% = \frac{0.3}{100} = 0.003$$

The decimal point moves two places to the left. Fill in any spaces with zeros.

Write $\frac{3}{4}$ as a decimal and percent.

You can use a proportion:

$$\frac{3}{4} = \frac{n}{100}$$

$$\frac{4n}{4} = \frac{300}{4}$$

$$n = 75$$

$$\text{So, } \frac{3}{4} = 0.75 = 75\%.$$

Write each in two other ways.

1. $\frac{2}{10}$ _____; _____

2. $\frac{23}{100}$ _____; _____

3. $\frac{7}{10}$ _____; _____

4. 97% _____; _____

5. 16% _____; _____

6. 52% _____; _____

7. 0.04 _____; _____

8. 0.35 _____; _____

9. **Number Sense** Sheila got 87% of the problem correct.

Patrick got $\frac{91}{100}$ correct. Who scored higher? _____

Name _____

Review
14

Problem Solving: Strategies

A computer store has 25 printers and computers.
There are 7 more printers than computers.
How many of each are there?

	Printers	Computers	Check
Guess 1	20	5	$20 - 5 = 1$
Guess 2	14	11	$14 - 11 = 3$
Guess 3	16	9	$16 - 9 = 7$ ✓

Solution: There are 16 printers and 9 computers.

Problem Solving Strategies

- Act It Out
- Draw a Picture
- Look For a Pattern
- **Try, Check, and Revise**
- Make an Organized List
- Make a Table
- Solve a Simpler Problem
- Work Backward

Use any strategy to solve.

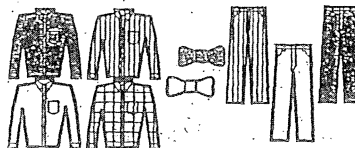
1. At the veterinarian's office, Terri learned that her dog weighed 4 times as much as her cat. Together the pets weighed 40 lbs. How much did the dog weigh? _____

2. Yasmin arrived home from play practice at 4:25 p.m. The walk home took 15 minutes. Practice began 20 minutes after the final bell and lasted for a half hour. When did school end? _____

3. Vanessa, Diego, Rose and Randy stood in line for lunch. Rose was just behind Vanessa. Diego was not next to Rose or Randy. Write the line order. _____

4. Students played dodge ball and volleyball for 45 minutes. They played dodge ball for 11 more minutes than they played volleyball. How long did they play dodge ball? _____

5. Mr. Jones has 4 shirts, 2 ties, and 3 pair of pants. How many days in a row can he wear a different outfit? _____



Name _____

Customary Measurement

R 10-1

Units of Length

foot (ft) 1 ft = 12 in.

yard (yd) 1 yd = 3 ft

1 yd = 36 in.

mile (mi) 1 mi = 5,280 ft

1 mi = 1,760 yd

Units of Capacity

cup (c) 1 c = 8 fluid ounces (oz)

pint (pt) 1 pt = 2 c

quart (qt) 1 qt = 2 pt

gallon (gal) 1 gal = 4 qt

How to change from one unit of measurement to another:

To change from larger units to smaller units in the customary system, you have to multiply.

120 yd = _____ ft

1 yd = 3 ft

$120 \times 3 \text{ ft} = 360 \text{ ft}$

120 yd = 360 ft

To change from smaller units to larger ones, you have to divide.

256 oz = _____ c

1 c = 8 oz

$256 \div 8 = 32$

256 oz = 32 c

Complete.

1. 36 in. = _____ ft

2. 4 qt = _____ c

3. 5 lb = _____ oz

4. 39 ft = _____ yd

5. 1.5 mi = _____ ft

6. 3.5 gal = _____ qt

7. 2 T = _____ lb

8. 16 pt = _____ qt

9. 64 oz = _____ lb

10. 3 yd = _____ in.

11. 4 gal = _____ pt

12. 55 yd = _____ ft

13. 6.5 lb = _____ oz

14. 20 pt = _____ gal

15. 4.5 qt = _____ c

16. 205 yd = _____ ft

17. **Reasoning** A vendor at a festival sells soup for \$1.25 per cup or \$3.75 per quart. Which is the better buy?
- _____

173

Name _____

Metric Measurement

R 10-2

Changing from one metric unit to another:

To change from a larger unit to a smaller unit, multiply by a power of ten.

$$3.8 \text{ L} = \underline{\hspace{2cm}} \text{ mL}$$

A liter is a larger unit than a milliliter. To change from liters to milliliters, multiply.

$$1 \text{ L} = 1,000 \text{ mL}$$

$$3.8 \times 1,000 = 3,800$$

$$3.8 \text{ L} = 3,800 \text{ mL}$$

To change from a smaller unit to a larger unit, divide by a power of ten.

$$100 \text{ m} = \underline{\hspace{2cm}} \text{ km}$$

The meter is a smaller unit than the kilometer. To change from meters to kilometers, divide.

$$1,000 \text{ m} = 1 \text{ km}$$

$$100 \div 1000 = 0.1$$

$$100 \text{ m} = 0.1 \text{ km}$$

Name the most appropriate metric unit for each measurement.

1. mass of a cow

2. length of a carrot

3. capacity of a thimble

Complete.

4. $45 \text{ g} = \underline{\hspace{2cm}} \text{ mg}$

5. $3450 \text{ mL} = \underline{\hspace{2cm}} \text{ L}$

6. $4.5 \text{ m} = \underline{\hspace{2cm}} \text{ mm}$

7. $1.68 \text{ L} = \underline{\hspace{2cm}} \text{ mL}$

8. $28 \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$

9. $7,658 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$

10. $600 \text{ cm} = \underline{\hspace{2cm}} \text{ m}$

11. $5,000 \text{ mg} = \underline{\hspace{2cm}} \text{ g}$

12. $5.1 \text{ km} = \underline{\hspace{2cm}} \text{ m}$

13. $1.780 \text{ L} = \underline{\hspace{2cm}} \text{ mL}$

14. $0.780 \text{ L} = \underline{\hspace{2cm}} \text{ mL}$

15. $4,300 \text{ m} = \underline{\hspace{2cm}} \text{ km}$

16. $9,000 \text{ cm} = \underline{\hspace{2cm}} \text{ m}$

17. $8,000 \text{ mg} = \underline{\hspace{2cm}} \text{ g}$

18. **Reasoning** It is recommended that people have 1 g of calcium each day. How many milligrams of calcium is that?

12

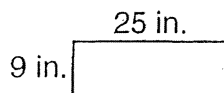
Name _____

Review
16

Perimeter

Perimeter is the distance around a shape.

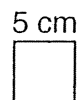
You can add the lengths of all the sides or you can multiply the sum of the length and the width by 2 to find the perimeter of a rectangle.



$$p = 25 \text{ in.} + 9 \text{ in.} + 25 \text{ in.} + 9 \text{ in.} = 68 \text{ in.}$$

$$\text{or } p = 2 \times (25 \text{ in.} + 9 \text{ in.}) = 68 \text{ in.}$$

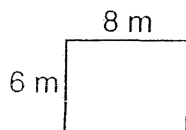
If only one side of a figure is given, then all sides have the same length.



$$p = 5 \text{ cm} + 5 \text{ cm} + 5 \text{ cm} + 5 \text{ cm} = 20 \text{ cm}$$

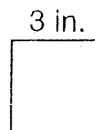
$$\text{or } p = 4 \times 5 \text{ cm} = 20 \text{ cm}$$

1. Find the perimeter of the rectangle.



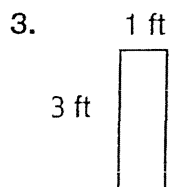
$$p = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ m}$$

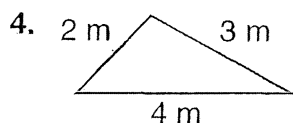
2. Find the perimeter of the square.

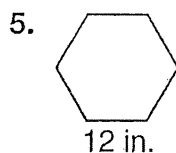


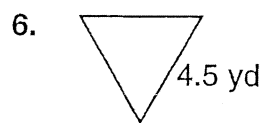
$$p = \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ in.}$$

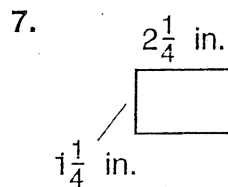
Find the perimeter of each figure.

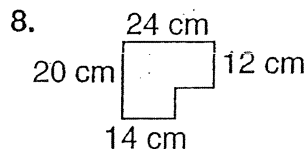


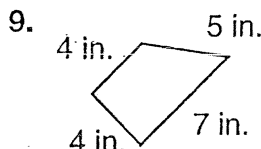


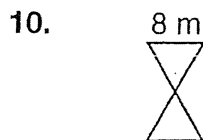












11. A flower garden is in the shape of an equilateral triangle.

Each side measures $15\frac{3}{8}$ ft. What is the garden's perimeter?

Name _____

Area of Squares and Rectangles

R 10-8

You can use formulas to find the area of a square or rectangle.

Find the area of a square that is 7.2 m on each side.

Use the formula $A = s^2$.

$$A = (7.2)^2$$

$$A = 51.84$$

The area is 51.84 m².

Find the area of a rectangle with a length (l) of 4 cm and a width (w) of 12 cm.

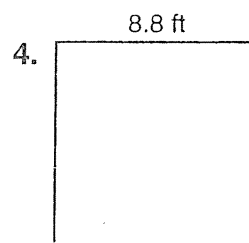
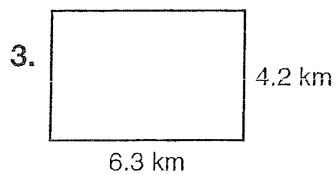
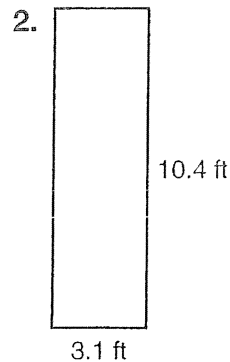
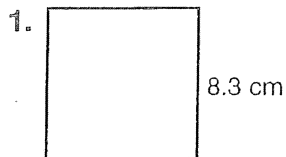
Use the formula $A = l \times w$.

$$A = 4 \times 12$$

$$A = 48$$

The area is 48 cm².

Find the area of each figure.



5. **Reasoning** What is the length of a rectangle that has an area of 120 ft² and a width of 8 ft? _____

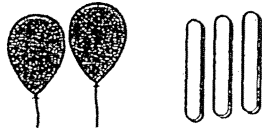
6. **Number Sense** What is the area of a square that is 12.4 cm on each side? _____

Name _____

**Review
18**

Ratio and Proportion

You can use **ratios** to compare two quantities.



2 balloons to 3 sticks

You can write ratios as:

words 2 to 3

with a colon 2:3

as a fraction $\frac{2}{3}$

A statement that two ratios are equal is called a **proportion**.



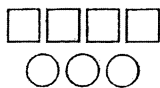
$$\frac{1 \text{ balloon}}{2 \text{ sticks}} = \frac{2 \text{ balloons}}{4 \text{ sticks}}$$

$$\frac{1}{2} = \frac{1 \times 2}{2 \times 2} = \frac{2}{4}$$

$\frac{1}{2} = \frac{2}{4}$ is a proportion.

Write each ratio. Use words, a colon, or a fraction.

1. Write the ratio of squares to circles.



2. The Computer Club has 20 girls and 15 boys. Write the ratio of girls to boys in the club.

Tell if the ratios form a proportion. Write yes or no.

3. $\frac{3}{4}$ $\frac{9}{12}$ _____

4. $\frac{1}{3}$ $\frac{2}{9}$ _____

5. $\frac{3}{5}$ $\frac{6}{10}$ _____

6. $\frac{4}{6}$ $\frac{8}{18}$ _____

Complete each table so that all ratios are equal.

7.

3	6	9	12
5			

8.

2			
7	21	42	63

9.

4		20	
5	10		50

10. The ratio of the width to the length of a painting is 3 to 7. If the painting is 42 in. long, how wide is it?

11. The ratio of the number of moons the planet Neptune has to the number that Saturn has is 4 to 9. Saturn has 18 moons. How many moons does Neptune have?

15

Name _____ Period _____ Date _____

Rates, Ratios, and Proportions Quiz Study Guide

Write each ratio as a fraction in simplest form.

1. 7th-grade boys to 6th-grade boys _____

2. 7th-grade girls to 6th-grade boys _____

3. 7th graders to 6th graders _____

4. boys to girls _____

5. girls to all students _____

	Boys	Girls
7th Grade	26	34
6th Grade	30	22

Find each unit rate.

6. 78 mi on 3 gal

7. \$52.50 in 7 h

8. 416 mi in 8 h

9. A 64-ounce container of sports juice costs \$6.50. A 48-ounce container of the same juice costs \$4.25.
Which size container is the better buy?

Solve each proportion.

10. $\frac{4}{r} = \frac{5}{20}$

11. $\frac{2}{9} = \frac{6}{k}$

12. $\frac{h}{35} = \frac{3}{7}$

13. $\frac{2.7}{3.0} = \frac{3.6}{x}$

Set up a proportion to solve. Be your to answer the question with a complete sentence.

14. You can peel 4 potatoes in 10 minutes. How long will it take you to peel 14 potatoes?

15. You can read 45 pages of your new book in 2 hours. How many pages can you read in 3 hours?

16. Nine out of ten students prefer math class over lunch. How many students do not prefer math if 200 students were asked?

17. You estimate that you can do 12 math problems in 45 minutes. How long should it take you to do 20 math problems?

18. A girl makes 12 foul shots for every 8 that she misses. How many shots did she make if she shot 125 foul shots?

19. The ratio of girls to boys in the 6th grade is 6 to 7. How many girls are there if there are 364 total students?

EXTRA PRACTICE

Write Numbers in Words and Digits - Write the numbers below in word form.

1. 560.08

2. 7.016

3. 24.47

4. 6,003

5. 3,005,600.07

Write the number the name represents:

6. Forty-five thousandths

7. Seventeen and seven hundredths

8. Five million, three hundred thousand, twenty-nine and six tenths

9. Six million and five thousandths

10. Two hundred eight thousand, four

Ordering Decimals

Exercises: List each group of numbers in order **from least to greatest**:

1.) 20, 4, .6, .08

2.) 246.8, 248.6, 244.9, 246.5

3.) 1.03, 2.4, .89, .987

4.) 14.8, 2.68, .879, 8.47

5.) 5.3, 5.12, 5.38, 5.29

6.) 54.89, 56.3, 58.1, 52.98

7.) 4, .006, .8, .07

8.) 297, 3.456, 64.4, 7.24

9.) 794, 793.8, 794.65, 794.7

10.) 9, 6.7, 7.24, 14

11.) 4.2, 4.19, 4.07, 4.3

12.) 3.75, 6.7, 3.8, .45

Add and Subtract Whole Numbers – YOU MUST SHOW ALL WORK.

Solve: No Calculators.

1.) $6,496 + 3,288 =$

2. $54,398 + 64,508 =$

3.) $3,254 + 4,113 =$

4.) $754 - 549 =$

5.) $54,678 + 74,357 =$

6.) $98,455 - 14,789 =$

7.) $38,904 - 32,899$

8.) $908 - 774 =$

Multiply and Divide Whole Numbers

Hints/Guide: You may use standard multiplication practices or lattice. To divide, please clarify the quotient and remainder. **Also:** if you can change your remainder to a decimal, please provide the answer.

$24 \div 3 =$

$24 \div 6 =$

$16 \times 15 =$

$20 \div 5 =$

$74 \times 10 =$

$190 \div 19 =$

$32 \div 2 =$

$79 \times 9 =$

$216 \div 12 =$

$444 \times 77 =$

$114 \div 14 =$

$4 \times 58 =$

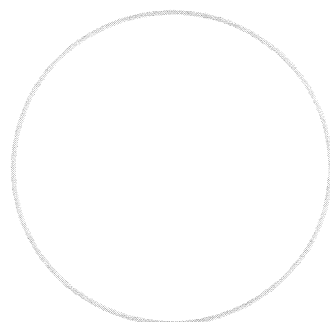
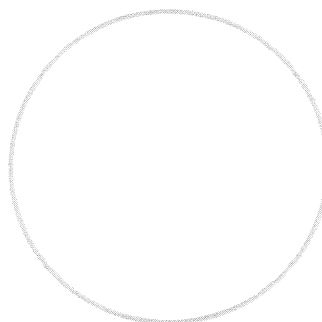
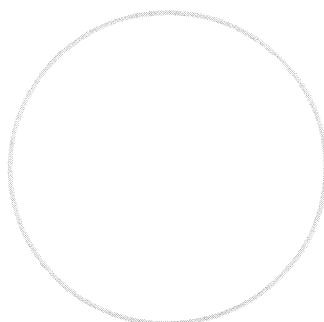
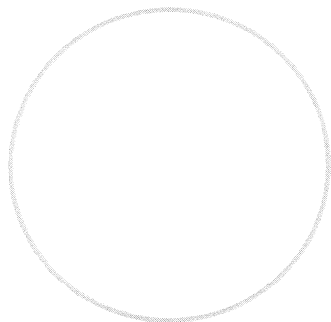
Fractions

Split and Label the following fractional parts (circles) with the given fractions.

1. $\frac{4}{5}$

2. $\frac{7}{8}$

3. $\frac{4}{2}$

**Fraction Operations**

Hints/Guide: When adding and subtracting fractions, we need to be sure that each fraction has the same denominator, then add or subtract the numerators together.

Exercises: Perform the indicated operation: No Calculators! 😊

1. $\frac{1}{2} + \frac{3}{4}$

4. $\frac{5}{10} + \frac{1}{2}$

2. $\frac{5}{8} + \frac{3}{4}$

5. $\frac{3}{4} - \frac{2}{8}$

3. $\frac{7}{3} + \frac{1}{3}$

6. $\frac{20}{50} - \frac{1}{10}$

Add and Subtract Decimals

Hints/Guide: When adding and subtracting decimals, the key is to line up the decimals above each other, add zeros as place holders, then use the same rules as adding and subtracting whole numbers.

1) $15.7 + 2.34 + 5.06 =$

2) $64.038 + 164.8 + 15.7 =$

3) $2.6 + 64.89 + 4.007 =$

4) $12.9 + 2.008 + 75.9 =$

5) $87.4 - 56.09 =$

6) $5.908 - 4.72 =$

7) $68.9 - 24.74 =$

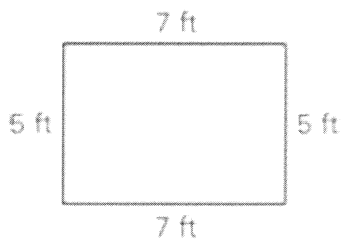
8) $955.3 - 242.7 =$

Reading Scales and Finding Area and Perimeter

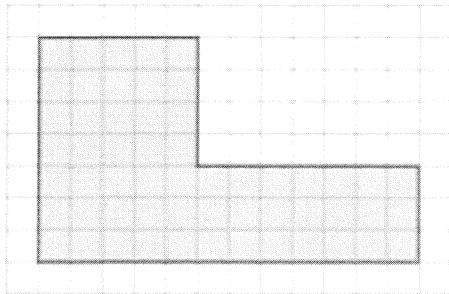
Hints/Guide: To determine the correct answer when reading scales, the important thing to remember is to determine the increments (the amount of each mark) of the given scale.

To find the perimeter of a rectangle or square, we must add the lengths of all of the sides together. To find the area of a square or a rectangle, we must multiply the length by the width.

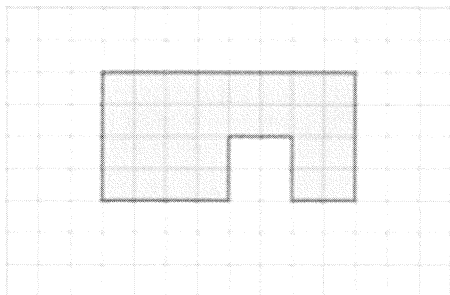
Exercises: Find the area and perimeter of the following. All units are in feet.



area _____ perimeter _____



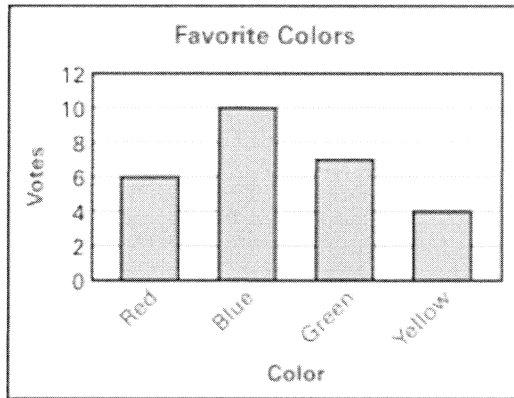
area _____ perimeter _____



area _____ perimeter _____

Analyzing Data

Use the bar graph.

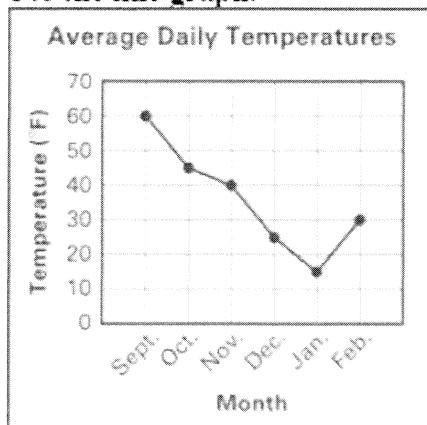


What color did 7 people vote for?

What color had 4 fewer votes than blue?

What was the total number of votes for red and yellow?

Use the line graph.

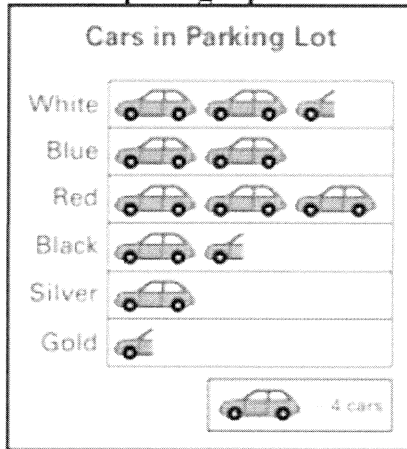


In which month was the average daily temperature the lowest?

What is the difference between the average daily temperatures for November and December?

What was the average daily temperature for October?

Use the pictograph.



How many black cars were in the parking lot?

How many fewer silver cars were in the parking lot than red cars?

Which color car has twice as many in the parking lot as silver cars?

Calculating Measures of Center

Data Set: 5, 12, 6, 3, 8, 16, 8, 6

Mean:

Median:

Mode:

Range:

Data Set: 2, 7, 4, 11, 12, 4, 6

Mean:

Median:

Mode:

Range:

Factors and Multiples.

Write a list of factors for each pair of numbers. Circle the Greatest Common Factor.

1) 18 and 24

2) 12 and 15

3) 17 and 20

4) 21 and 40

Find the first 10 multiples of the following. Circle the Least Common Multiple.

1) 12 and 4

2) 9 and 8