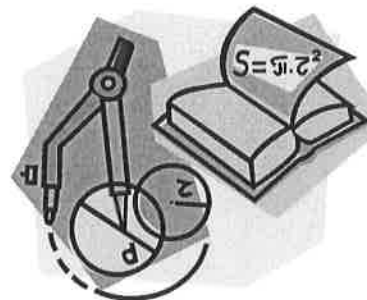
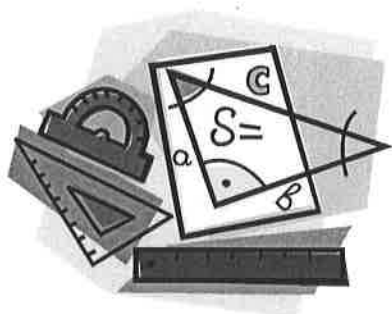


## Summer Math Packet

For students in 6<sup>th</sup> grade going into 7<sup>th</sup> grade in September

This assignment is to be handed in no later than Friday, September 5<sup>th</sup>, and late work after this date will not be accepted. Students re-registering, regardless of the date of re-registration, will be responsible for turning in summer math packets.

Packets will be graded and included in the first marking period grades.



## Math Objectives for Students Entering Seventh Grade

Upon entering the seventh grade, students should demonstrate proficiency with the following objectives:

- Adding, subtracting, multiplying and dividing whole numbers, decimals, and fractions **quickly and accurately**
- Converting between units of standard length, capacity, and weight
- Converting between metric units of length, capacity, and weight
- Calculating volume of a rectangular prism
- Calculating surface area of prisms and pyramids
- Interpreting and creating histograms, scatter plots, and box-and-whisker plots
- Solving and simplify algebraic expressions, equations, and inequalities
- Graphing ordered pairs on a coordinate plane
- Finding percent of a number

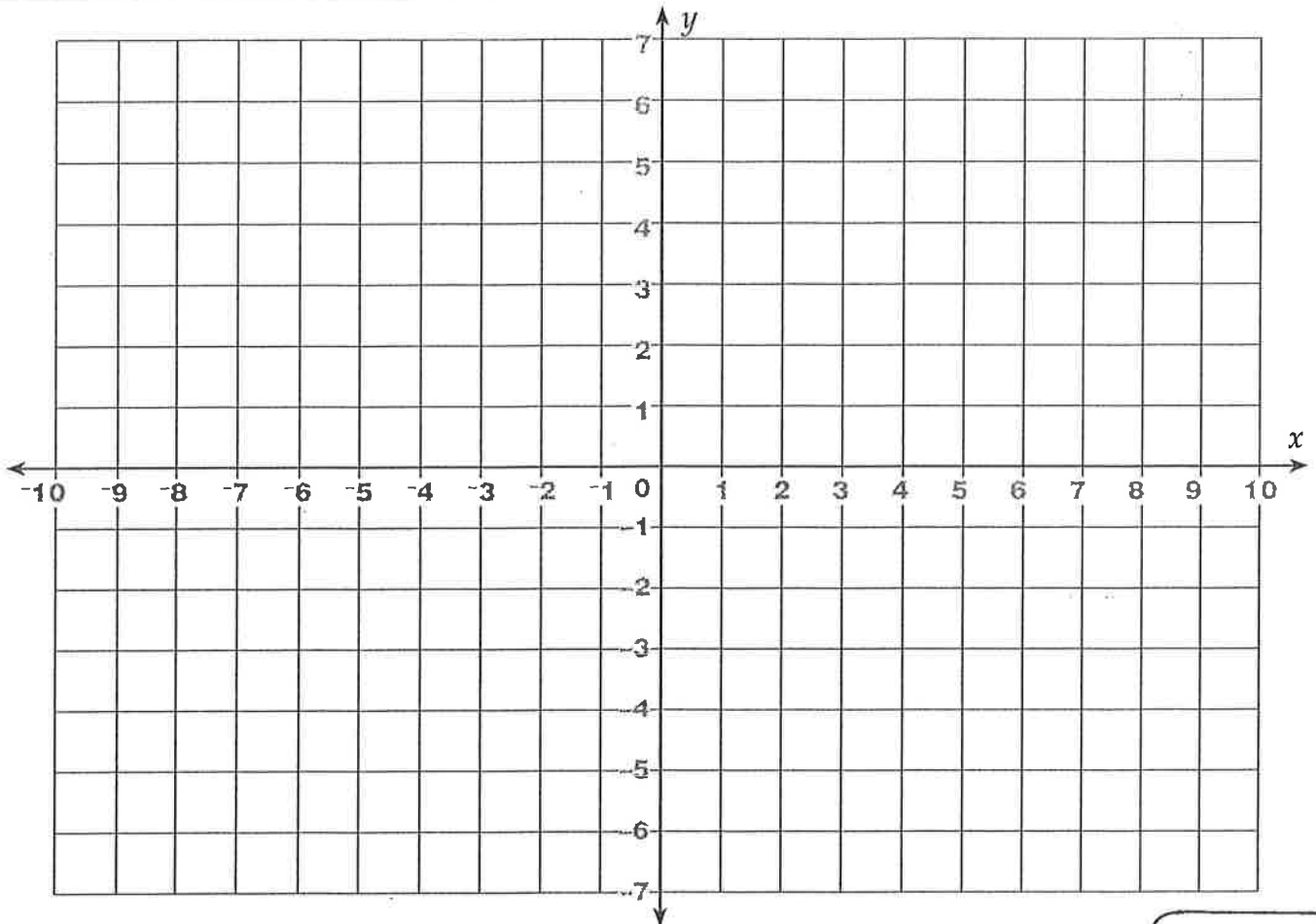
These are all skills that were taught in sixth grade. If your child is having difficulty with any of these concepts, please work on them over the summer. They will be expected to be able to solve these types of problems quickly and accurately.

# Graphing Points

## Remember

The first number in an ordered pair is the  $x$ -coordinate. It tells how far to move across from the origin. A positive number means *go right*. A negative number means *go left*.

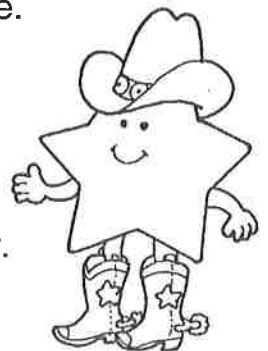
The second number in an ordered pair is the  $y$ -coordinate. It tells how far to move up or down. A positive number means *go up*. A negative number means *go down*.



Follow the steps to draw and color the state flag of Texas.

1. To make a rectangle, plot and connect these points in order. Color it red.  
 $(-3, 0)$   $(3, 0)$   $(9, 0)$   $(9, -6)$   $(3, -6)$   $(-3, -6)$   $(-3, 0)$
2. Plot and connect these points to make another rectangle. Leave it white.  
 $(-3, 0)$   $(-3, 6)$   $(3, 6)$   $(9, 6)$   $(9, 0)$   $(3, 0)$   $(-3, 0)$
3. Plot and connect these points to make a star. Leave it white.  
 $(-8, 1)$   $(-6.5, 1)$   $(-6, 2.5)$   $(-5.5, 1)$   $(-4, 1)$   $(-5, 0)$   $(-4.5, -1.5)$   
 $(-6, -0.5)$   $(-7.5, -1.5)$   $(-7, 0)$   $(-8, 1)$
4. Plot and connect these points to make a rectangle surrounding the star. Color its background dark blue.  
 $(-9, 0)$   $(-9, 6)$   $(-3, 6)$   $(-3, 0)$   $(-3, -6)$   $(-9, -6)$   $(-9, 0)$

-6.5 is  
halfway  
between  
-6 and -7



Name \_\_\_\_\_ Date \_\_\_\_\_

# Mix It Up!

Draw a line to match the underlined digit on the left with the corresponding place value on the right.

① 1.2345

② 1.2345

③ 1.2345

④ 1.2345

⑤ 1.2345

A. Tenths

B. Ten-Thousandths

C. Ones

D. Hundredths

E. Thousandths

Round each decimal to the named place value.

⑥ 6.754 to the tenth

\_\_\_\_\_

⑦ 9.5432 to the hundredth

\_\_\_\_\_

⑧ 3.624834 to the ten-thousandth

\_\_\_\_\_

⑨ 2.4596 to the thousandth

\_\_\_\_\_

No calculators -  
Solve. Show all work

⑩  $345.6 - 3.221 =$  \_\_\_\_\_

⑫  $67.1 \times 0.023 =$  \_\_\_\_\_

⑭  $5.4 \div 2 =$  \_\_\_\_\_

⑯  $567.0321 \times 10,000 =$  \_\_\_\_\_

⑰  $80.64 \div 1.6 =$  \_\_\_\_\_

⑱  $567.4 \div 100 =$  \_\_\_\_\_

⑪  $763.4 \div 100 =$  \_\_\_\_\_

⑬  $3.7417 \div 3.1 =$  \_\_\_\_\_

⑮  $1.5 \times 3.5 =$  \_\_\_\_\_

⑲  $20.5 \div 2.5 =$  \_\_\_\_\_

⑲  $754.009 \times 100 =$  \_\_\_\_\_

⑳  $654.54 \div 100 \times 10 =$  \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

# Adding and Subtracting Unlike Fractions

$$\frac{1}{4} + \frac{3}{8} = \frac{2}{8} + \frac{3}{8} = \frac{5}{8}$$

$$\frac{5}{12} - \frac{3}{8} = \frac{10}{24} - \frac{9}{24} = \frac{1}{24}$$

Rewrite the fractions in like terms. Solve. Simplify if needed.

*Show all work*

①  $\frac{3}{8} + \frac{2}{3} =$

②  $\frac{7}{8} - \frac{8}{10} =$

③  $\frac{1}{5} - \frac{1}{6} =$

④  $\frac{1}{8} + \frac{1}{3} =$

⑤  $\frac{1}{3} + \frac{2}{5} =$

⑥  $\frac{1}{4} + \frac{4}{5} =$

⑦  $\frac{5}{8} - \frac{1}{3} =$

⑧  $\frac{2}{7} - \frac{2}{9} =$

⑨  $\frac{9}{14} + \frac{6}{28} =$

⑩  $\frac{11}{18} + \frac{5}{54} =$

⑪  $\frac{5}{7} - \frac{3}{5} =$

⑫  $\frac{31}{72} - \frac{3}{8} =$

⑬  $\frac{7}{6} + \frac{2}{3} =$

⑭  $\frac{2}{3} - \frac{8}{27} =$

⑮  $\frac{13}{16} - \frac{1}{8} =$

Name \_\_\_\_\_

Date \_\_\_\_\_

4

# Multiplying Fractions

$$\frac{1}{3} \times \frac{2}{7} = \frac{2}{21}$$

Solve. *Show all work*

①  $\frac{2}{3} \times \frac{1}{3} =$

②  $\frac{1}{4} \times \frac{1}{3} =$

③  $\frac{1}{8} \times 8 =$

④  $\frac{2}{5} \times \frac{1}{2} =$

⑤  $\frac{1}{4} \times \frac{1}{2} =$

⑥  $\frac{1}{7} \times \frac{1}{4} =$

⑦  $1 \times \frac{1}{3} =$

⑧  $\frac{1}{10} \times 2 =$

⑨  $\frac{8}{9} \times \frac{25}{27} =$

⑩  $1\frac{1}{4} \times 1\frac{1}{3} =$

⑪  $5\frac{1}{2} \times 2 =$

⑫  $2\frac{1}{4} \times 3\frac{1}{3} =$

⑬  $\frac{3}{4} \times \frac{1}{8} \times \frac{7}{8} =$

⑭  $4\frac{1}{2} \times 1\frac{5}{8} \times 2\frac{1}{3} =$

Name \_\_\_\_\_ Date \_\_\_\_\_

# Dividing with Fractions

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

Find the quotient. *Show all work*

1  $\frac{1}{4} \div \frac{1}{8} =$

2  $\frac{3}{8} \div \frac{1}{4} =$

3  $\frac{5}{6} \div \frac{1}{3} =$

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

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

6  $6 \div \frac{1}{3} =$

7  $\frac{4}{5} \div \frac{1}{4} =$

8  $\frac{1}{10} \div 10 =$

9  $\frac{1}{7} \div \frac{4}{5} =$

10  $\frac{1}{2} \div \frac{1}{8} =$

11  $\frac{5}{24} \div 5 =$

12  $\frac{1}{3} \div \frac{1}{3} =$

13  $\frac{1}{9} \div \frac{8}{9} =$

14  $\frac{1}{10} \div 1,000 =$

15  $\frac{3}{10} \div \frac{2}{9} =$








16  $\frac{8}{9} \div \frac{2}{7} =$

## Application Word Problems

6

Solve the word problems.

Show all steps

1. Factory workers make \$15 per hour and work 40 hours per week. How much should the Radcliff Company budget for salary each week if they have 250 workers?  

2. The ferris wheel at Wonder World has 24 cages, each of which holds 4 people. In 1 hour, the ferris wheel can give rides to 20 sets of people. How many people can ride in a 12-hour day?  

3. The school library has 75 bookcases; each case has 6 shelves, and each shelf can hold 42 books. How many books can the library hold?  

4. Six friends went out to lunch. The total bill was \$48. Two of the people each had a \$3 coupon. If they split the check equally, how much will each pay?  

5. Becky needs to save \$432 for summer camp. She earns \$4 per hour, 4 hours per day, 3 days per week. How many weeks must Becky work?  

6. Lee and Miguel each bought compact disks. Lee bought 4 and Miguel bought 3. If each disk was the same price and together they spent \$63, how much was each compact disk?  

7. James needs to earn 360 points to receive an A for the quarter. He already has grades of 95, 87, and 93. How many points must he earn on the next quiz to get an A?  

8. Jackie has \$246 to spend on concert tickets. Orchestra seats are \$16 each, mezzanine seats are \$12 each, and balcony seats are \$10 each. If she buys 4 orchestra seats and 6 mezzanine seats, how many balcony seats can she afford to buy?

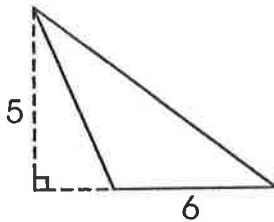




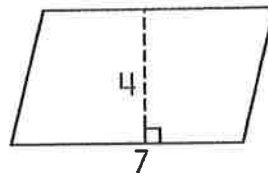
## Area

Triangle:	area = $\frac{1}{2}$ base x height
Rectangle/Square:	area = base x height
Parallelogram:	area = base x height
Trapezoid:	area = $\frac{1}{2}$ height (base + base)

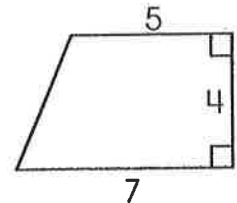
Find the area of the polygonal regions below. Express in square units.



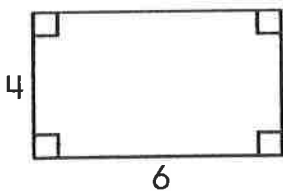
1. \_\_\_\_\_



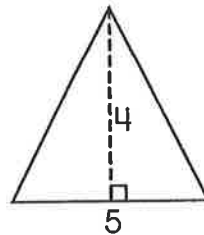
2. \_\_\_\_\_



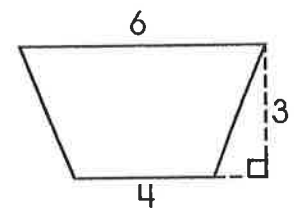
3. \_\_\_\_\_



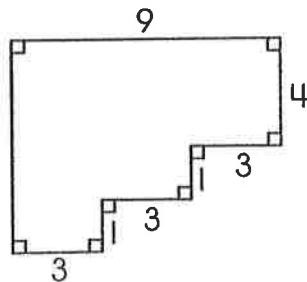
4. \_\_\_\_\_



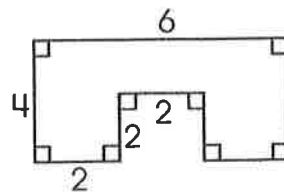
5. \_\_\_\_\_



6. \_\_\_\_\_



7. \_\_\_\_\_



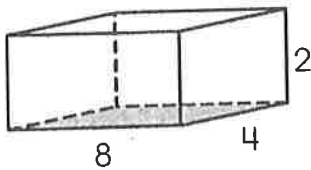
8. \_\_\_\_\_

# Prisms

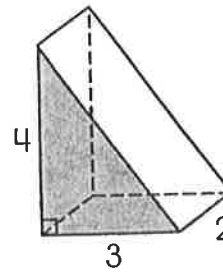
$$\text{Volume} = \text{area of base} \times \text{height}$$

Find the volume of the following prisms. The bases are shaded.

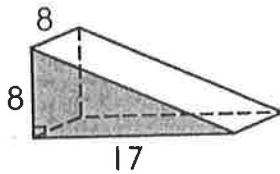
1. \_\_\_\_\_



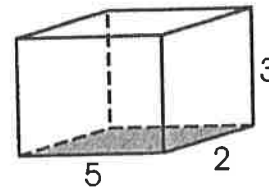
2. \_\_\_\_\_



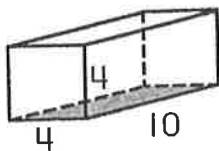
3. \_\_\_\_\_



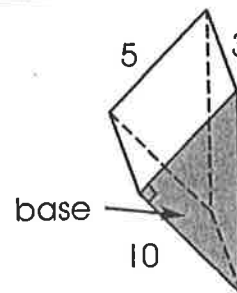
4. \_\_\_\_\_



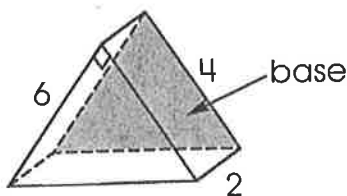
5. \_\_\_\_\_



6. \_\_\_\_\_



7. \_\_\_\_\_



8. \_\_\_\_\_

