

# End-of-Year Test

## Part 1

For this part of the test, use only paper and pencil or mental math to solve the problems. Estimate to make sure your answers are reasonable.

$$\begin{array}{r} 1. \quad 1225 \\ - \quad 397 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 1362 \\ + \quad 3758 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 2003 \\ - \quad 795 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 13 \\ \times 28 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 5992 \\ \quad \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 97 \\ \times 50 \\ \hline \end{array}$$

$$7. \quad 3 \overline{)88}$$

$$8. \quad 5 \overline{)735}$$

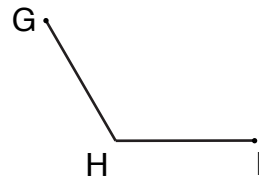
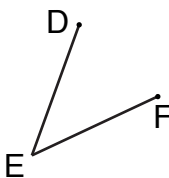
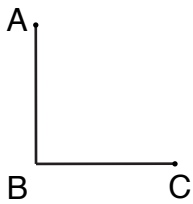
9. A. Explain your estimation strategy for Question 6.
- B. Explain a mental math strategy for Question 5.
10. Bessie Coleman School is collecting paper for a recycling program. After three months they collected 3,908 pounds of paper. They collected about the same amount of paper each of the three months.
- A. Estimate the amount of paper collected each month. Write a number sentence to show how you found your estimate.
- B. Recycling 1 ton (2000 pounds) of paper saves about 17 trees. About how many trees did the students at Bessie Coleman School save during the first three months of the recycling program? Show or tell how you solved this problem.

11. Use the divisibility rules to answer Questions A-F about these numbers.

238	396	415	360
8235	5050	3063	4977

- A. Which numbers are divisible by 2? Tell how you decided.
  
- B. Which numbers are divisible by 3? Tell how you decided.
  
- C. Which numbers are divisible by 5? Tell how you decided.
  
- D. Which numbers are divisible by 6? Tell how you decided.
  
- E. Which numbers are divisible by 9? Tell how you decided.
  
- F. Which numbers are divisible by 10? Tell how you decided.

12. Estimate the measure (in degrees) of each of the following angles.



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## Part 2

Solve the following problems. You may use any of the tools that you usually use in class including a calculator.

13. Complete the following table. A flat  $\square$  is equal to 1.

Base-Ten Shorthand	Decimal	Fraction
$\square \square // \dots$		$2\frac{25}{100}$
	1.6	
		$3\frac{4}{100}$
$\square \square /// : \dots$		

14. Construct a quadrilateral ABCD using the following rules:

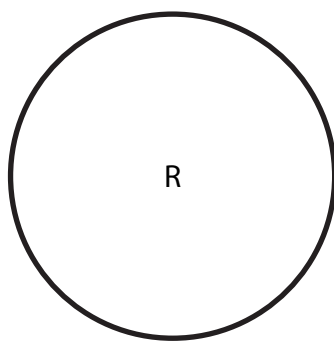
- A.  $\overrightarrow{AB}$  must be parallel to  $\overrightarrow{DC}$
- B.  $\overrightarrow{AD}$  must be perpendicular to  $\overrightarrow{DC}$
- C. The measure of Angle A equals 90 degrees.
- D. The measure of Angle B is less than 90 degrees.

15. Put the following fractions in order from smallest to largest.

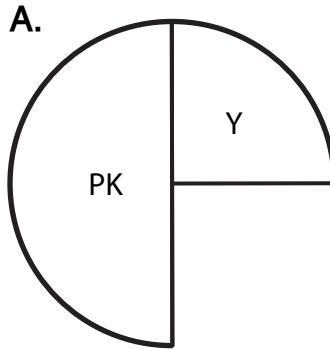
A.  $\frac{1}{6}, \frac{1}{4}, \frac{1}{2}, \frac{1}{3}$

B.  $\frac{4}{12}, \frac{1}{12}, \frac{13}{12}, \frac{14}{12}$

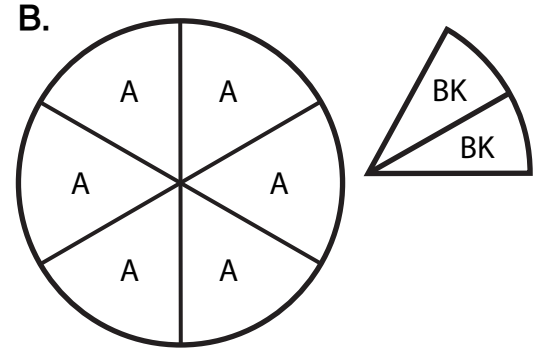
16. If a red circle is equal to 1 whole, name the following numbers each figure represents. You may use fraction circle pieces to help you.



1 Whole



\_\_\_\_\_



\_\_\_\_\_

17. Jackie ordered a special gift box of Chocos. There were 12 candies in the box.

- A.  $\frac{1}{3}$  of the candies in the box have cream filling.
- B.  $\frac{1}{6}$  of the candies in the box have caramel filling.
- C.  $\frac{3}{12}$  of the candies in the box are nutty clusters.
- D.  $\frac{1}{4}$  of the candies in the box have coconut filling.

How many of each kind are in Jackie's box? Complete the table. Write a multiplication number sentence.

Kind of Candy	Number Sentence	Number of Candies in the Box
Cream Filling		
Caramel Filling		
Nutty Clusters		
Coconut Filling		

18. Which number sentences are true?

	True	False
A. $3 \times \frac{2}{3} = 3 \times \frac{1}{2} \times 2$		
B. $6 \times \frac{1}{3} = 2$		
C. $4 \times \frac{3}{8} = 2 \times 3$		
D. $4 \times \frac{3}{8} = \frac{3}{8} + \frac{3}{8} + \frac{3}{8} + \frac{3}{8}$		
E. $4 \times \frac{3}{8} = \frac{12}{8}$		
F. $4 \times \frac{3}{8} = \frac{12}{32}$		
G. $3 \times \frac{2}{3} = 6 \times \frac{1}{3}$		

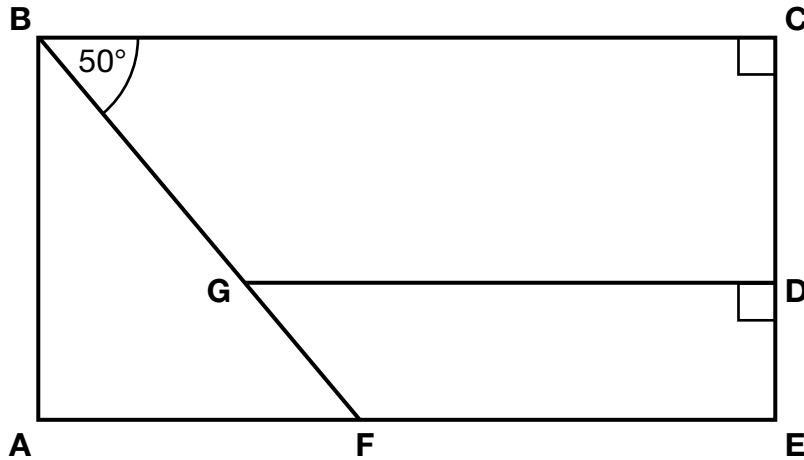
H. Show or tell how you decided whether the number sentence in 18G is true or false.

19. Use the graph below to answer the following questions. Use a separate sheet of paper to record your answers.



- A. Describe the graph.
- B. Do the points lie close to a straight line? If so, use a ruler to draw a best-fit line.
- C. If possible, predict the weight of an average 14-year-old girl. Explain your answer.
- D. If possible, predict the weight of an average 23-year-old woman. Explain your answer.
- E. If possible, predict the weight of an average 1-year-old girl. Explain your answer.

20. Use the diagram below to answer Questions A–F below.



Find the measures of the following angles.

- A.  $\angle ABF$
- B.  $\angle AFB$
- C.  $\angle CDG$
- D.  $\angle BGD$
- E.  $\angle DGF$
- F.  $\angle EFG$
- G. Show or tell how you found the answer for 20D.

21. Use the fraction circle pieces and the *Fraction Chart* to complete each table.

Multiply by  $\frac{1}{3}$

A.

Input	Output
6	
9	
12	
15	

Multiply by  $\frac{2}{3}$

B.

Input	Output
6	
9	
12	
15	

Multiply by  $\frac{1}{5}$

C.

Input	Output
5	
10	
15	
20	

Multiply by  $\frac{3}{5}$

D.

Input	Output
5	
10	
15	
20	

Multiply by  $\frac{1}{4}$

E.

Input	Output
2	
4	
6	
8	
12	
16	

Multiply by  $\frac{3}{4}$

F.

Input	Output
2	
4	
6	
8	
12	
16	