



State of Texas Assessments of Academic Readiness

GRADE 7

Mathematics

Paper Item Sampler

- 1** A baker has a bag with 20 cups of flour. The baker plans to use the flour to make 4 loaves of bread. Each loaf of bread uses $3\frac{1}{3}$ cups of flour.

How many cups of flour will remain in the bag when the baker has finished making the bread?

Record your answer in the space provided.

- 2** The measures of the angles of triangle PQR can be represented in terms of x :

- The measure of angle P is $(2x)^\circ$.
- The measure of angle Q is $(x + 17)^\circ$.
- The measure of angle R is $(x - 21)^\circ$.

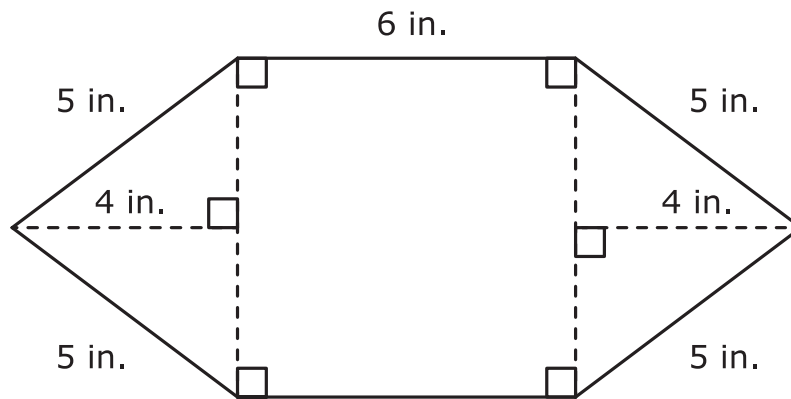
Create an equation that can be used to find the measure of each angle.

Record your answer in the space provided.

3 What is the solution to the equation $-6x - 11 = 19$?

Record your answer in the space provided.

4 The figure shown is composed of two congruent triangles and a square. Measurements are given in inches.



What is the total area of the figure in square inches?

Record your answer in the space provided.

- 5 Ian has \$6,000.00 to invest for 2 years. The table shows information about two investments Ian can make.

Investments

| Investment | Rate | Type of Interest |
|------------|------|------------------|
| X | 4.5% | Simple |
| Y | 4% | Compound |

Ian makes no additional deposits or withdrawals. Which investment earns the greater amount of interest over a period of 2 years?

Select **ONE** correct answer in each box to complete the sentence.

The investment with the greater amount of interest is

- | |
|--|
| <input type="radio"/> (A) Investment X |
| <input type="radio"/> (B) Investment Y |

which earns

- | |
|-----------------------------------|
| <input type="radio"/> (A) \$9.60 |
| <input type="radio"/> (B) \$12.15 |
| <input type="radio"/> (C) \$50.40 |

more.

- 6 The radius of a circle is about 0.84 inch, and the circumference of the circle is 5.28 inches. Describe how to use this information to best represent the value of π .

Select **ONE** correct answer in each box to complete the sentence.

The value of π is best represented by

(A) dividing

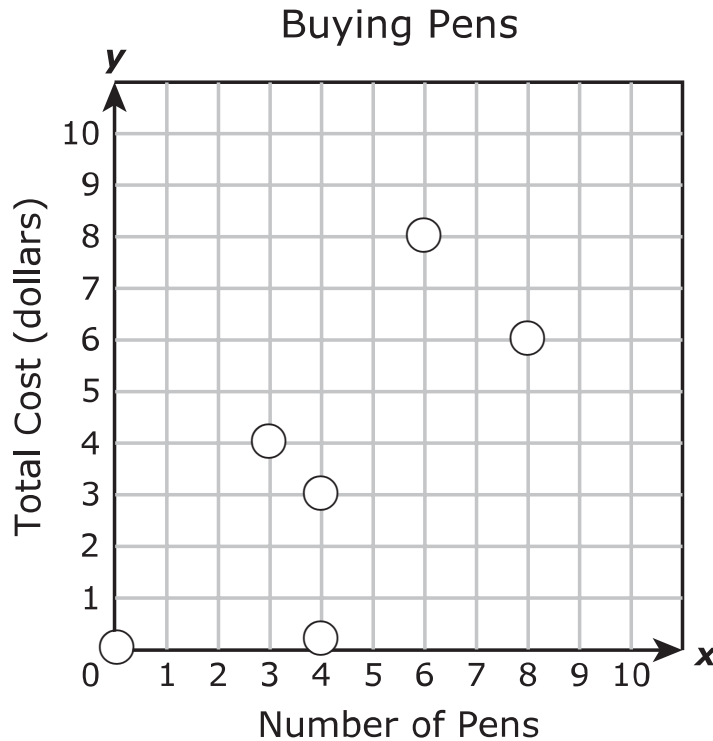
(B) multiplying

(A) 5.28 by 0.84

(B) 5.28 by 1.68

-
- 7 James buys 4 pens for \$3. Which three points lie on the line that best represents the total cost, y , of x pens?

Shade the **THREE** correct circles that represent the points.



- 8 The table shows Mr. Archer's net worth statement. Which items are liabilities?

Select **THREE** correct answers.

Net Worth Statement

| Item | Value (dollars) |
|--|-----------------|
| <input type="radio"/> Checking account | 590 |
| <input type="radio"/> Auto loan | 3,300 |
| <input type="radio"/> Credit card debt | 950 |
| <input type="radio"/> Savings account | 1,590 |
| <input type="radio"/> Home mortgage | 86,500 |

-
- 9 The table shows a linear relationship between x and y .

| x | y |
|-----|-----|
| 3 | 7 |
| 5 | 11 |
| 10 | 21 |

Create an equation that describes the relationship shown in the table.

Write the correct answer in each box. Not all answers will be used.

-2 **-1** **1** **2**

$$y = \boxed{}x + \boxed{}$$

- 10** Kaden is ordering an ice cream sundae with one topping. He can choose hot fudge, strawberry sauce, or caramel sauce for his topping and can choose chocolate or vanilla ice cream.

Complete the table to show all possible one-topping sundaes he can order.

Select the correct answer for each box. Not all answers will be used.

A Hot fudge

B Strawberry sauce

C Caramel sauce

D Chocolate

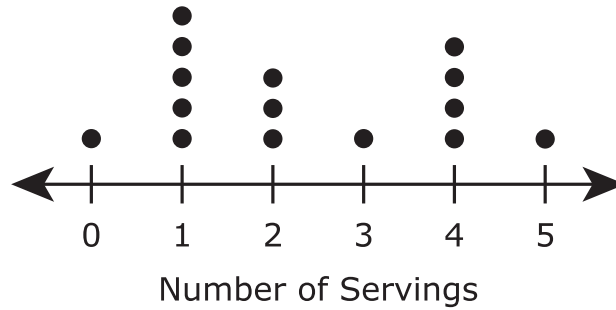
E Vanilla

One-Topping Sundaes

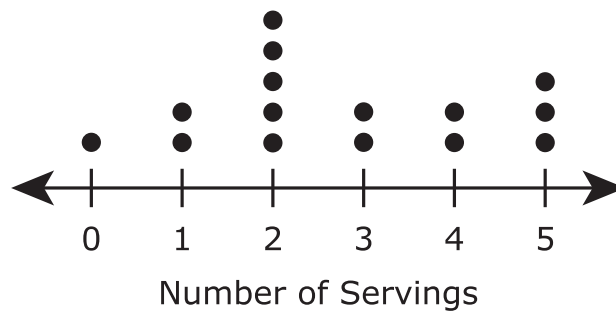
| Sundae | Topping | Ice Cream |
|--------|---------------------|---------------------|
| 1 | Hot fudge | Chocolate |
| 2 | Hot fudge | (A) (B) (C) (D) (E) |
| 3 | Strawberry sauce | Chocolate |
| 4 | (A) (B) (C) (D) (E) | Vanilla |
| 5 | Caramel sauce | (A) (B) (C) (D) (E) |
| 6 | Caramel sauce | Vanilla |

- 11 A teacher recorded the number of servings of vegetables her students ate each day. The dot plots show the results from Class 1 and Class 2.

Class 1



Class 2



Each ● means 1 student.

Indicate whether each measure in the table is equal or not equal for the two classes.

Select **ONE** correct answer in each row.

| Measure | Equal | Not Equal |
|---------|-------|-----------|
| Median | (A) | (B) |
| Mode | (A) | (B) |

12 Tamara is purchasing two shirts. For each shirt, she can choose one of three discounts:

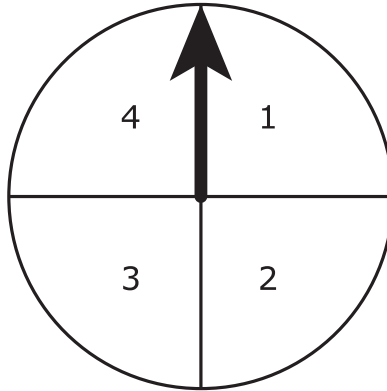
- Discount 1: coupon for 20% off the price of any item
- Discount 2: \$5 rebate on any item
- Discount 3: $\frac{1}{4}$ off the price of any item over \$20

For each shirt listed in the table, indicate which discount offers the lowest discounted price.

Select **ONE** correct answer in each row.

| Original Price of Shirt (dollars) | Discount 1 | Discount 2 | Discount 3 |
|-----------------------------------|------------|------------|------------|
| 16 | (A) | (B) | (C) |
| 28 | (A) | (B) | (C) |

- 13** The spinner shown has equal-sized sections labeled 1 through 4. It will be spun 20 times.



Which statements are reasonable predictions?

Select **TWO** correct answers.

- A 3 is likely to be spun 5 times.
 - An even number is more likely to be spun than an odd number.
 - A number less than 3 is likely to be spun 15 times.
 - A number greater than 2 is likely to be spun 10 times.
 - A 4 is more likely to be spun than a 1.
-

- 14** Which inequalities are true when $x = -8$?

Select **TWO** correct answers.

- $\frac{1}{2}x + 12 \leq -4$
- $-2x + 9 \geq 25$
- $3x + 8 > -16$
- $-\frac{1}{8}x - 2 > -3$
- $-x + 9 < 12$

**STAAR
GRADE 7
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