

# Tennessee Comprehensive Assessment Program

# TCAP

## Math Grade 6 Item Release



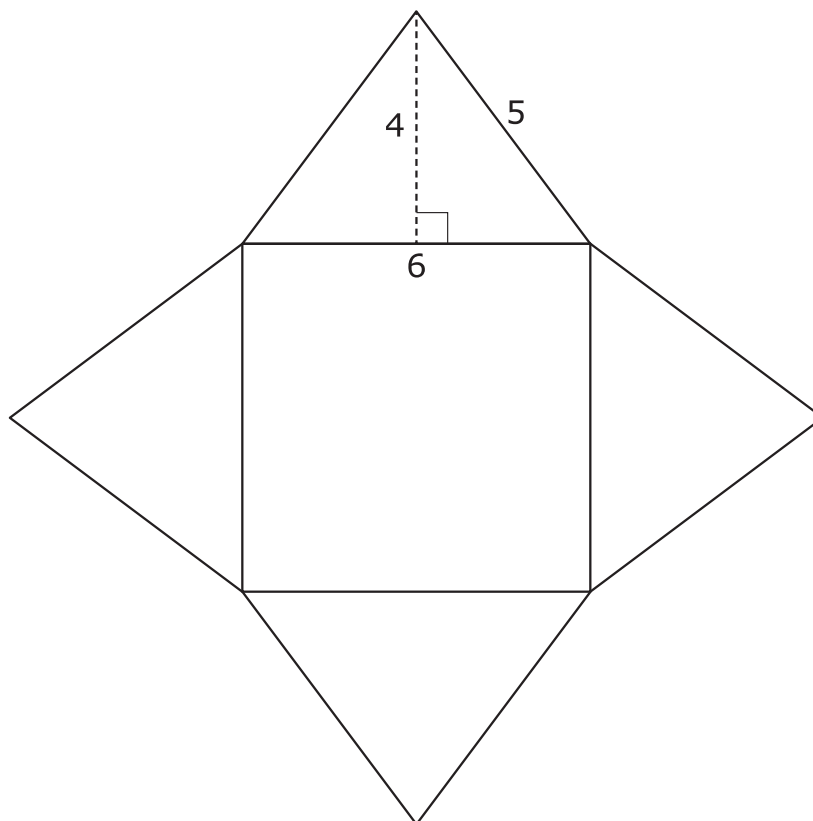
- 00.** The data shown will be placed on a dot plot.

Which statement **best** describes the shape of the distribution?

7, 9, 10, 10, 13, 16, 17, 17, 18, 19, 19, 19, 19, 20, 20, 20, 20

- A.** The data will be fairly evenly distributed.
- B.** The data will be clustered to the left.
- C.** The data will be clustered in the center.
- D.** The data will be clustered to the right.

00. The net of a square pyramid is shown.



What is the surface area, in square units, of the square pyramid formed by folding the net?

- A. 84
- B. 96
- C. 120
- D. 132

- 00.** For which pair of numbers is the least common multiple the same as the product of the two numbers?
- A.** 6 and 8
  - B.** 12 and 4
  - C.** 11 and 6
  - D.** 4 and 8

**00.** Which expressions are equivalent to  $6 + x + 10x$ ?

Select the **two** that are equivalent.

**A.**  $2(5x + 3) + x$

**B.**  $2(5x + 3)$

**C.**  $2x(3 + 5)$

**D.**  $11x + 6$

**E.**  $16x$

**00.** Which inequality is true when  $x = 0.5$  and  $y = 5$ ?

**A.**  $4xy \geq 11.5$

**B.**  $9y + x > 45.5$

**C.**  $y - 2x < 3$

**D.**  $7xy \leq 18$

- 00.** The Math Club wants to earn at least \$50 in order to attend a competition by selling candy bars.

- The club spends \$15 to buy candy bars to sell.
- The club will sell each candy bar for \$1.

Which inequality can the club use to find  $x$ , the number of candy bars they need to sell in order to meet their goal?

- A.**  $x - 15 \leq 50$
- B.**  $x + 15 \leq 50$
- C.**  $x - 15 \geq 50$
- D.**  $x + 15 \geq 50$

**00.** Select the **two** expressions equivalent to  $(56 + 72)$ .

**A.**  $9(6 + 8)$

**B.**  $8(7 + 9)$

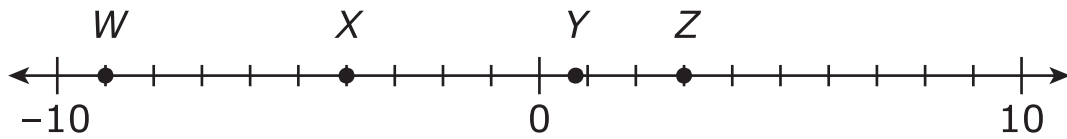
**C.**  $3(18 + 22)$

**D.**  $4(14 + 18)$

**E.**  $4(14 + 72)$



- 00.** Which statement is true about the numbers represented by the points on the number line?



- A.** Point  $X$  has a greater absolute value than point  $W$ .
- B.** Point  $Y$  has a greater absolute value than point  $X$ .
- C.** Point  $W$  has the greatest absolute value of the points on the number line.
- D.** Point  $Z$  has the greatest absolute value of the points on the number line.

- 00.** Which statement correctly describes a unit rate?
- A.** Emily pays \$1 for 5 drinks. The unit rate is \$5 per drink.
  - B.** Alan pays \$8 for 4 pencils. The unit rate is \$2 per pencil.
  - C.** Karen pays \$12 for 3 muffins. The unit rate is \$15 per muffin.
  - D.** Roberto pays \$24 for 12 gallons of gas. The unit rate is \$12 per gallon.

- 00.** There are 500 students at a middle school. Of these students, 350 will attend a dance.

What percentage of the students at this school will attend the dance?

- A.** 15%
- B.** 30%
- C.** 35%
- D.** 70%

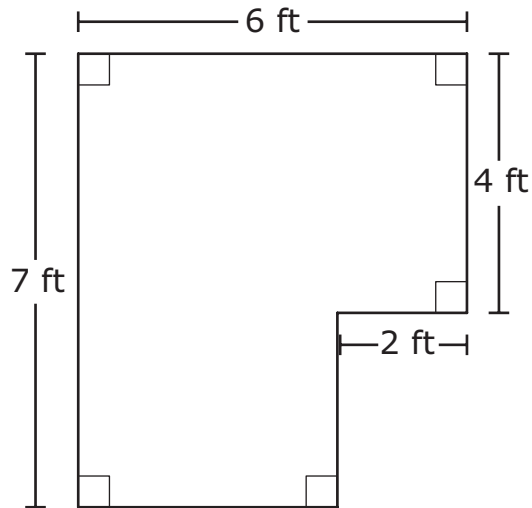
- 00.** The list shows the number of points a football team scored each game for 16 games.

0, 0, 0, 0, 0, 10, 15, 15, 15, 15, 20, 20, 20, 30, 30, 45

Which **two** statements about this list are true?

- A.** The median is greater than the mean.
- B.** The mean is greater than the median.
- C.** The range is greater than the median.
- D.** The median is greater than the range.
- E.** The range, mean, and median are all the same value.

- 00.** The figure shows the dimensions of a closet floor.



What is the area, in square feet, of the closet floor?

- A.** 19
- B.** 24
- C.** 36
- D.** 42

- 00.** Marianna is trying to compute  $1\frac{3}{4} \div \frac{7}{8}$ .

Which statement shows the correct value and justification?

- A.** 2 because  $2 \times \frac{7}{8} = 1\frac{3}{4}$
- B.** 2 because  $2 \times \frac{8}{7} = 1\frac{3}{4}$
- C.**  $\frac{1}{2}$  because  $\frac{1}{2} \times \frac{7}{8} = 1\frac{3}{4}$
- D.**  $\frac{1}{2}$  because  $\frac{1}{2} \times \frac{8}{7} = 1\frac{4}{3}$

- 00.** Raven plays on a basketball team. She earns 1 point for each free throw basket she makes.

Which equation represents the relationship between the number of free throw baskets Raven makes,  $b$ , and the number of points she earns,  $p$ ?

**A.**  $p = b$

**B.**  $b = \frac{1}{p}$

**C.**  $p = 1 + b$

**D.**  $b = 1 + p$

**00.** Which expression shows “subtract five from the quotient of 15 and a number”?

**A.**  $5 - \frac{15}{n}$

**B.**  $5 - 15n$

**C.**  $\frac{15}{n} - 5$

**D.**  $15n - 5$



## Metadata- Math

### Items

Page Number	UIN	Grade	Item Type	Key	DOK	TN Standards	Calculator
4	TN0018329	06	MC	D	2	6.SP.A.2	Y
5	TN0022364	06	MC	A	2	6.G.A.4	Y
6	TN0025844	06	MC	C	2	6.NS.B.4	Y
7	TN0069107	06	MS	A,D	1	6.EE.A.4	N
8	TN0069145	06	MC	D	2	6.EE.B.5	Y
9	TN0069158	06	MC	C	1	6.EE.B.8	Y
10	TN0069169	06	MS	B,D	2	6.NS.B.4	N
11	TN0069189	06	MC	C	2	6.NS.C.7c	N
12	TN0069195	06	MC	B	1	6.RP.A.2	Y
13	TN0069204	06	MC	D	2	6.RP.A.3c	N
14	TN0069220	06	MS	A,C	2	6.SP.B.5c	Y
15	TN0069269	06	MC	C	2	6.G.A.1	Y
16	TN175400	06	MC	A	3	6.NS.A.1	Y
17	TN175527	06	MC	A	2	6.EE.C.9a	N
18	TN191936	06	MC	C	2	6.EE.A.2a	Y

### Metadata Definitions:

<b>UIN</b>	Unique letter/number code used to identify the item.
<b>Grade</b>	Grade level or Course.
<b>Item Type</b>	Indicates the type of item. MC= Multiple Choice; MS= Multiple Select
<b>Key</b>	Correct answer. This may be blank for constructed response items where students write or type their responses.
<b>DOK</b>	Depth of Knowledge (cognitive complexity) is measured on a three-point scale. 1 = Recall or simple reproduction of information; 2 = Skills and concepts: comprehension and processing of text; 3 = Strategic thinking, prediction, elaboration.
<b>TN Standards</b>	Primary educational standard assessed.
<b>Calculator</b>	Y for items that permit calculator use.