### Tennessee Comprehensive Assessment Program

# TCAP

## Math Grade 6 Test Practice







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#### Metadata—Math

#### Items

Page					TN	
Number	Grade	Item Type	Key	EOL	Standards	Calculator
1	6	MC	Α	3	6.EE.B.6	N
2	6	MS	A,D,E	2	6.G.A.4	N
3	6	MC	В	3	6.NS.B.2	N
4	6	MC	В	2	6.EE.A.2.c	N
5	6	MC	Α	3	6.NS.A.1	N
6	6	MC	В	3	6.NS.B.3	N
7	6	MC	В	3	6.EE.C.9.a	N
8	6	MC	С	3	6.EE.B.8	N
9	6	MC	D	3	6.NS.C.6.a	N
10	6	MS	A,B,C	3	6.EE.B.5	N
11	6	MC	С	3	6.NS.C.7.b	N
12	6	MC	В	3	6.EE.B.8	N
13	6	MC	D	2	6.RP.A.1	N
14	6	MC	Α	2	6.EE.A.4	Υ
15	6	MC	D	3	6.RP.A.1	Υ
16	6	MS	A,B,C	3	6.NS.C.6.a	Υ
17	6	MC	В	4	6.SP.B.5.d	Υ
18	6	MC	С	4	6.NS.C.6.b	Υ
19	6	MC	Α	3	6.RP.A.3.d	Υ
20	6	FIB	160	3	6.G.A.2	Υ
21	6	MC	D	2	6.EE.A.2.a	Υ
22	6	MC	В	3	6.SP.A.3	Υ
23	6	MC	Α	3	6.G.A.1	Υ
24	6	MC	С	3	6.RP.A.2	Υ
25	6	MC	В	4	6.NS.B.4	Υ
26	6	MC	С	3	6.RP.A.3.b	Υ
27	6	FIB	20	4	6.RP.A.3.c	Υ
28	6	MC	Α	3	6.NS.C.7.a	Υ
29	6	MC	D	3	6.NS.C.8	Υ
30	6	MC	D	3	6.EE.B.6	Υ
31	6	MC	В	2	6.G.A.3	Y
32	6	MC	Α	3	6.NS.C.6.c	Y
33	6	MS	B,E	3	6.EE.B.7	Y
34	6	MC	Α	3	6.NS.C.7.c	Y
35	6	MC	В	3	6.EE.A.3	Y
36	6	MC	С	3	6.NS.A.1	Υ
37	6	MC	Α	3	6.RP.A.3.c	Υ

38	6	MC	С	2	6.EE.A.4	Υ
39	6	MC	С	3	6.SP.B.5.a	Υ
40	6	MC	Α	3	6.EE.B.7	Υ

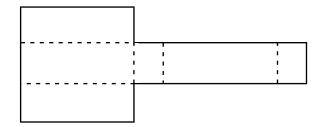
#### **Metadata Definitions**

Grade	Grade level or Course.
Item Type	Indicates the type of item.  MC= Multiple Choice; MS= Multiple Select;  FIB = Fill-in-the-blank
Key	Correct answer.
EOL	Evidence of Learning (EOL) statements provide indication of how students are tracking toward grade-level conceptual understanding of the Tennessee Mathematic Standards.  Performance at Level 2 demonstrates that the student is approaching grade-level understanding and has a partial ability to apply the grade-/course-level knowledge and skills defined by the Tennessee Academic Standards  Performance at Level 3 demonstrates that the student has a comprehensive understanding and thorough ability to apply the grade-/course-level knowledge and skills defined by the Tennessee Academic Standards  Performance at Level 4 demonstrated that the student has an extensive understanding and expert ability to apply the grade-/course-level knowledge and skills defined by the Tennessee Academic Standards
TN Standards	Primary educational standard assessed.
Calculator	Y for items that permit calculator use.

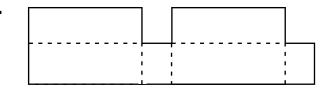
- **00.** Gina earns \$18 per hour at her job. Which expression could be used to find her pay for working x hours?
  - **A.** 18*x*
  - **B.**  $\frac{18}{x}$
  - **C.** x + 18
  - **D.** x 18

**00.** Which nets can be folded along the dotted lines to form rectangular prisms? Select the **three** correct answers.

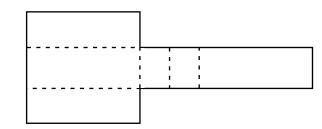
Α.



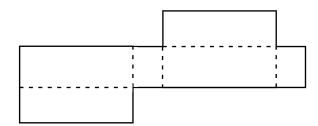
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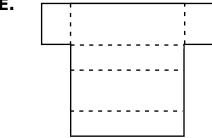
C.



D.



E.



#### **00.** What is $371 \div 25$ ?

- **A.** 14.21
- **B.** 14.84
- **C.**  $15\frac{4}{25}$  **D.**  $15\frac{9}{25}$

- **00.** What is the value of 2x + 6(x 3) when x = 8?
  - **A.** 27
  - **B.** 46
  - **C.** 61
  - **D.** 110

**00.** A float in a parade moves at a speed of  $\frac{3}{4}$  mile per hour. The parade is  $1\frac{2}{3}$  miles long.

How long will it take, in hours, for the float to complete the parade?

- **A.**  $2\frac{2}{9}$
- **B.**  $1\frac{1}{4}$
- **c.**  $\frac{8}{9}$
- **D.**  $\frac{9}{20}$

- **00.** What is the product of 11.02 and 6.9?
  - **A.** 65.038
  - **B.** 76.038
  - **C.** 760.38
  - **D.** 7,603.8

**00.** A delivery truck travels at a constant rate of 60 miles per hour.

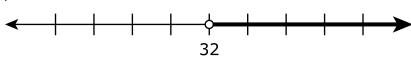
Which equation can be used to find h, the number of hours the truck takes to travel 1,000 miles?

- **A.** 1,000 = 60 + h
- **B.** 1,000 = 60h
- **C.** 1,000 + h = 60
- **D.** 1,000h = 60

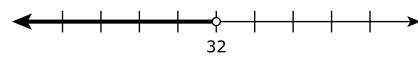
**00.** A student read more than 32 pages of a book.

Which inequality and graph **best** represent p, the number of pages read by the student?

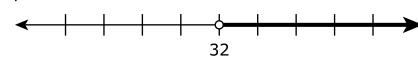
**A.** p < 32



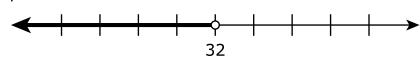
**B.** p < 32



**C.** p > 32



**D.** p > 32



- **00.** What number's value is the opposite of the opposite of -17?
  - **A.** 17
  - **B.**  $\frac{1}{17}$
  - **c.**  $-\frac{1}{17}$
  - **D.** -17

**00.** Which values for x make the inequality  $2x + 3 \le 9$  true?

Select the **three** correct answers.

- **A.** 0
- **B.** 2
- **C.** 3
- **D.** 4
- **E.** 6

**00.** Kevin recorded the low temperature for three days. The table shows his results.

Day	Low Temperature (°C)
Friday	-2.8
Saturday	1.4
Sunday	-0.9

Which list shows the days in order from lowest to highest recorded temperature?

- A. Sunday, Friday, Saturday
- B. Sunday, Saturday, Friday
- C. Friday, Sunday, Saturday
- D. Friday, Saturday, Sunday

**00.** When Jamila spends \$150 or more buying clothes online, she receives free shipping.

Which inequality represents x, all amounts of money Jamila could spend and receive free shipping?

- **A.** x < 150
- **B.**  $x \ge 150$
- **C.**  $x \le 150$
- **D.** x = 150

**00.** A school has 5 teachers for every 55 students.

What is the ratio of students to teachers?

- **A.** 5:11
- **B.** 5:55
- **C.** 11:5
- **D.** 55:5

- **00.** Which expression is equivalent to 3 + (5x + 4)?
  - **A.** 5x + 7
  - **B.** 8x + 7
  - **C.** 15x + 4
  - **D.** 15x + 12

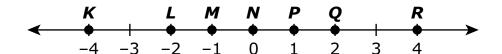
**00.** A school sells cups for a fund-raiser each year. The school receives a portion of the total sales, and the cup company receives the rest of the total sales. The table shows the amount of money the school received and the total sales each year for three years.

Year	Amount Received by School	<b>Total Sales</b>
1	\$1,225.00	\$1,750.00
2	\$1,487.50	\$2,125.00
3	\$1,575.00	\$2,250.00

What is the ratio of the amount of money the school receives to the amount of money the cup company receives each year?

- **A.** 3:10
- **B.** 7:10
- **C.** 3:7
- **D.** 7:3

**00.** Seven points are graphed on the number line shown.

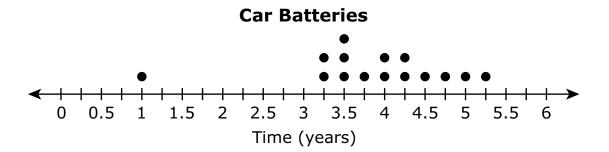


Which pairs of points represent opposite numbers?

Select the **three** correct answers.

- **A.** K and R
- **B.** L and Q
- $\mathbf{C}$ . M and P
- **D.** N and L
- **E.** P and Q

**00.** Employees at a car company researched how long car batteries last. The line plot displays the number of years each of 15 car batteries lasted.

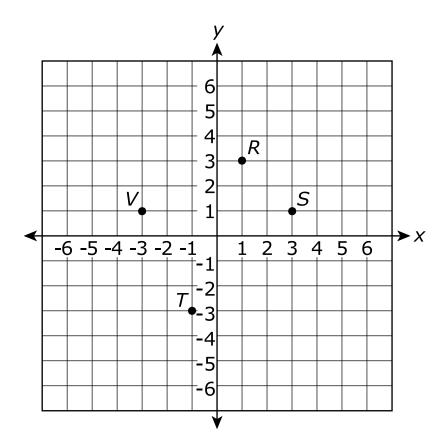


The data value of 1 year in the line plot is an error. It should be a data value of 3.75 years.

Which statement **best** describes how the change in the data value from 1 year to 3.75 years will affect the mean, median, and mode of the data set?

- **A.** The mean, median, and mode will all change.
- **B.** The mean will change, and the median and mode will remain the same.
- **C.** The mean and median will change, and the mode will remain the same.
- **D.** The mean and median will remain the same, and the mode will change.

**00.** A coordinate plane is shown.



Which point represents the ordered pair (-1, 3) reflected across the x-axis?

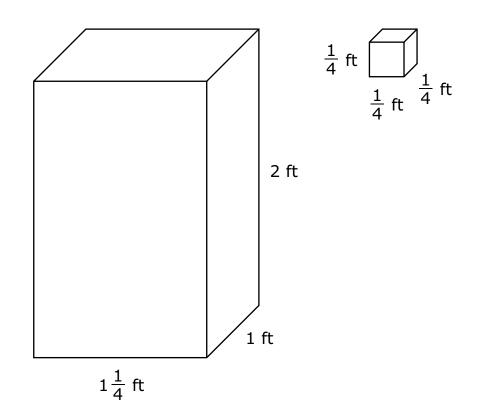
- **A.** point *R*
- **B.** point S
- **C.** point T
- **D.** point V

- **00.** A jug holds 2.5 gallons of fruit punch.
  - Saul is using the jug to fill containers.
  - Each container holds 5 cups.

How many of these containers can Saul fill from 1 full jug?

- **A.** 8
- **B.** 10
- **C.** 20
- **D.** 40

**00.** Malik places baseballs into cube-shaped boxes with side lengths measuring  $\frac{1}{4}$  foot. He then fills a large rectangular prism with the smaller boxes of baseballs, as shown.



How many boxes of baseballs can Malik pack into the large rectangular prism? Enter your answer in the space provided.

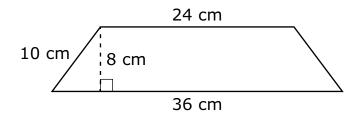
- **00.** Which expression represents 3 divided by the sum of x and 10?
  - **A.**  $\frac{x+10}{3}$
  - **B.**  $\frac{3}{x} + \frac{3}{10}$
  - **C.** 3 (x + 10)
  - **D.**  $3 \div (x + 10)$

**00.** Hector counted the number of raisins in 16 boxes of raisins. He found that the maximum number of raisins was 31, and the minimum number of raisins was 25. He also determined that the median number of raisins was 29.

What does the median show in this situation?

- **A.** The median shows that most boxes have 29 raisins in them.
- **B.** The median shows that half of the boxes have 29 or more raisins.
- **C.** The median shows that the boxes have between 25 and 31 raisins.
- **D.** The median shows that the raisins are evenly distributed between the 16 boxes.

**00.** An isosceles trapezoid is shown with some of its dimensions in centimeters.



What is the area of the trapezoid in square centimeters?

- **A.** 240
- **B.** 252
- **C.** 272
- **D.** 336

- **00.** A carpenter used 624 square feet of wood to build 12 equal-sized doghouses. How many square feet of wood did the carpenter use for each doghouse?
  - **A.** 40
  - **B.** 51
  - **C.** 52
  - **D.** 64

- **00.** Jose makes gift boxes for 24 coloring books and 18 boxes of crayons. What is the greatest number of gift boxes he can make if each gift box contains the same number of both items and there are no coloring books or boxes of crayons left over?
  - **A.** 2
  - **B.** 6
  - **C.** 18
  - **D.** 42

- **00.** A box of pencils costs \$1.60. Each box contains 40 pencils. What is the unit cost of one pencil, to the nearest cent?
  - **A.** \$0.02
  - **B.** \$0.03
  - **C.** \$0.04
  - **D.** \$0.25

00.	A student uses a coupon to buy a book and only pays \$12. The coupon was for
	40% off. What was the original price of the book in dollars?

Enter your answer in the space provided.

#### **00.** Which statement is true?

- **A.** -6 < -2 because -6 is located to the left of -2 on the number line.
- **B.** 6 > -2 because 6 is located to the left of -2 on the number line.
- **C.** -2 < -6 because -2 is located to the left of -6 on the number line.
- **D.** 2 > -2 because 2 is located to the left of -2 on the number line.

- **00.** The coordinates of four points on a coordinate plane are listed.
  - *F*(-4, 3)
  - G(5, 3)
  - H(−4, −7)
  - J(5, −2)

What is the distance, in units, between point F and point H?

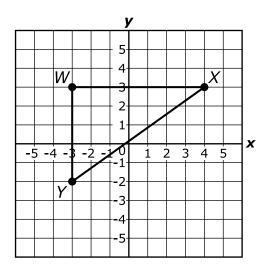
- **A.** 4
- **B.** 5
- **C.** 9
- **D.** 10

**00.** A cleaning company charges customers a basic fee of \$75 plus an additional \$50 per hour to clean carpets.

Which expression represents the total charge, in dollars, when the company spends h hours cleaning a customer's carpets?

- **A.** (50 + 75) + h
- **B.** (75 + 50)h
- **C.** 50 + 75h
- **D.** 75 + 50h

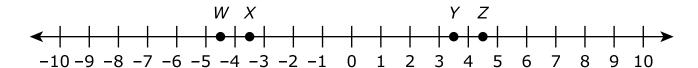
**00.** A right triangle is shown on the grid.



What is the length, in units, of segment WY?

- **A.** 3
- **B.** 5
- **C.** 6
- **D.** 7

**00.** Four points are graphed on the number line shown.



Which point **best** represents  $-4\frac{1}{2}$ ?

- $\mathbf{A}.$  W
- **B.** *X*
- **C.** *Y*
- **D.** *Z*

**00.** Samantha is participating in a reading fund-raiser for her school. For every page she reads, she will earn \$0.27 for the school. Samantha set a goal to earn \$54.00.

Which expressions can be used to represent p, the number of pages Samantha will need to reach her goal?

Select the **two** correct answers.

**A.** 
$$p \div 54 = 0.27$$

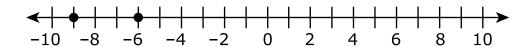
**B.** 
$$p = 54 \div 0.27$$

**C.** 
$$0.27 + 54 = p$$

**D.** 
$$0.27 \cdot 54 = p$$

**E.** 
$$0.27p = 54$$

**00.** Two points are shown on a number line.



Which statement is true?

- **A.** |-6| is less than |-9| because 6 is located to the left of 9 on the number line.
- **B.** |-6| is less than |-9| because both -6 and -9 are to the left of 0 on the number line.
- **C.** |-6| is greater than |-9| because -6 is closer to 0 than -9 is on the number line.
- **D.** |-6| is greater than |-9| because both 6 and 9 are to the right of 0 on the number line.

- **00.** Which expression is equivalent to y + y + y + y + y + y?
  - **A.**  $\frac{1}{5}y$
  - **B.** 5*y*
  - **C.**  $y^5$
  - **D.** y + 5

**00.** Zara has  $7\frac{7}{8}$  cups of soil. She will fill pots for planting with  $\frac{2}{3}$  cup of soil each.

What is the greatest number of pots Zara can fill with the soil she has?

- **A.** 5
- **B.** 6
- **C.** 11
- **D.** 12

**00.** A school club has sold 120 of the tickets that were available for an event.

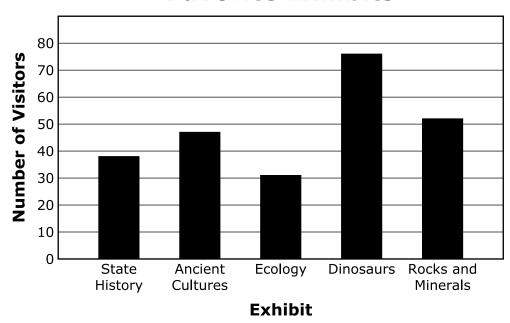
If 30% of the tickets have been sold, what was the total number of tickets available?

- **A.** 400
- **B.** 480
- **C.** 3,600
- **D.** 4,000

- **00.** Which expression is equivalent to c(8+p)?
  - **A.** 8c + p
  - **B.** 8c + 8p
  - **C.** 8c + cp
  - **D.** 8c + 8cp

**00.** A museum asked each visitor on Saturday to vote for one favorite exhibit. The results are shown in the bar graph.

**Favorite Exhibits** 



Which number is closest to the total number of visitors who voted?

- **A.** 200
- **B.** 220
- **C.** 250
- **D.** 270

**00.** A student downloaded 7 songs that each cost the same amount. The total cost to download the songs was \$5.95. The situation can be modeled by the equation 5.95 = 7c, where c is the cost of each download.

What was the cost for each song downloaded?

- **A.** \$0.85
- **B.** \$0.89
- **C.** \$1.05
- **D.** \$1.18

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