

Tennessee Comprehensive Assessment Program

TCAP

Math Grade 5 Test Practice





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Metadata—Math

Items

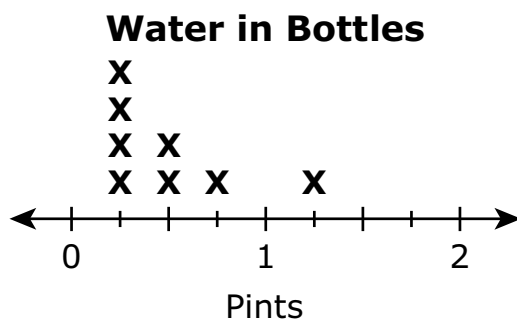
| Page Number | Grade | Item Type | Key | EOL | TN Standards | Calculator |
|-------------|-------|-----------|-------|-----|--------------|------------|
| 1 | 5 | MC | A | 3 | 5.MD.B.2 | N |
| 2 | 5 | MC | C | 3 | 5.NF.A.2 | N |
| 3 | 5 | MC | D | 2 | 5.OA.A.1 | N |
| 4 | 5 | MC | D | 3 | 5.NBT.B.7 | N |
| 5 | 5 | MC | B | 3 | 5.NF.A.1 | N |
| 6 | 5 | MC | A | 2 | 5.NBT.B.5 | N |
| 7 | 5 | MC | B | 3 | 5.NBT.A.4 | N |
| 8 | 5 | MC | D | 2 | 5.NF.B.7.b | N |
| 9 | 5 | MC | B | 2 | 5.G.B.3 | N |
| 10 | 5 | MC | B | 2 | 5.NF.B.4.b | N |
| 11 | 5 | MC | C | 3 | 5.NBT.A.2 | N |
| 12 | 5 | MC | C | 2 | 5.NBT.B.6 | N |
| 13 | 5 | MS | B,E | 3 | 5.OA.A.1 | N |
| 14 | 5 | MC | B | 3 | 5.NF.A.2 | N |
| 15 | 5 | MS | A,C,E | 2 | 5.NBT.B.5 | N |
| 16 | 5 | MC | B | 3 | 5.NBT.B.7 | N |
| 17 | 5 | MS | B,E | 3 | 5.NBT.A.4 | N |
| 18 | 5 | MC | A | 2 | 5.MD.C.3.a | N |
| 19 | 5 | MC | B | 3 | 5.NF.B.3 | N |
| 20 | 5 | MC | C | 3 | 5.OA.A.2 | Y |
| 21 | 5 | MC | A | 3 | 5.NBT.A.3 | Y |
| 22 | 5 | MC | C | 3 | 5.MD.A.1 | Y |
| 23 | 5 | MC | C | 2 | 5.MD.C.4 | Y |
| 24 | 5 | MC | B | 3 | 5.MD.B.2 | Y |
| 25 | 5 | MC | C | 3 | 5.NBT.A.1 | Y |
| 26 | 5 | MC | D | 4 | 5.MD.A.1 | Y |
| 27 | 5 | MC | A | 3 | 5.NF.B.4.b | Y |
| 28 | 5 | MC | C | 3 | 5.NBT.B.6 | Y |
| 29 | 5 | MC | D | 3 | 5.NF.B.4.a | Y |
| 30 | 5 | MC | B | 4 | 5.MD.C.5.c | Y |
| 31 | 5 | MC | D | 3 | 5.NF.A.1 | Y |
| 32 | 5 | MS | A,C,D | 3 | 5.NBT.A.3 | Y |
| 33 | 5 | MC | B | 3 | 5.NF.B.5.b | Y |
| 34 | 5 | MC | C | 2 | 5.MD.C.5.a | Y |
| 35 | 5 | MC | B | 3 | 5.OA.B.3.a | Y |
| 36 | 5 | MC | D | 3 | 5.G.B.3 | Y |
| 37 | 5 | MC | A | 3 | 5.G.A.1 | Y |

| | | | | | | |
|----|---|----|---|---|------------|---|
| 38 | 5 | MC | D | 3 | 5.NF.B.7.c | Y |
| 39 | 5 | MC | B | 3 | 5.MD.C.5.b | Y |
| 40 | 5 | MC | C | 4 | 5.MD.B.2 | Y |

Metadata Definitions

| | |
|---------------------|---|
| Grade | Grade level or Course. |
| Item Type | Indicates the type of item. MC= Multiple Choice; MS= Multiple Select |
| Key | Correct answer. |
| EOL | <p>Evidence of Learning (EOL) statements provide indication of how students are tracking toward grade-level conceptual understanding of the Tennessee Mathematic Standards.</p> <p>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</p> <p>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</p> <p>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</p> |
| TN Standards | Primary educational standard assessed. |
| Calculator | Y for items that permit calculator use. |

- 00.** The line plot shows the amount of water, in pints, in some bottles. Each X represents 1 bottle.



What is the total amount of water, in pints, of the bottles that are less than $\frac{1}{2}$ pint?

- A.** 1
- B.** 2
- C.** 3
- D.** 4

- 00.** Two identical beakers in a laboratory contain water. One of the beakers is $\frac{5}{11}$ full and the other beaker is $\frac{2}{9}$ full.

Which statement is true?

- A.** Both beakers are more than half full.
- B.** One of the beakers is about three-quarters full.
- C.** One of the beakers is about twice as full as the other.
- D.** If the water from one beaker is added to the other, it will spill over.

00. What is the value of this expression?

$$3 \times (8 + 4)$$

- A.** 24
- B.** 28
- C.** 31
- D.** 36

- 00.** A company makes fruit punch in a tank that holds 570 liters. The fruit punch in the tank is then packaged in jugs that each hold 3.8 liters.

What is the total number of jugs of fruit punch that can be filled from the tank?

- A.** 14
- B.** 15
- C.** 147
- D.** 150

00. Which equation could a student use to solve $7\frac{2}{5} - 1\frac{2}{3}$?

A. $6\frac{7}{5} - 1\frac{4}{5} = ?$

B. $6\frac{21}{15} - 1\frac{10}{15} = ?$

C. $7\frac{6}{15} - 1\frac{6}{15} = ?$

D. $7\frac{5}{8} - 1\frac{4}{8} = ?$

00. Which value correctly completes the equation shown?

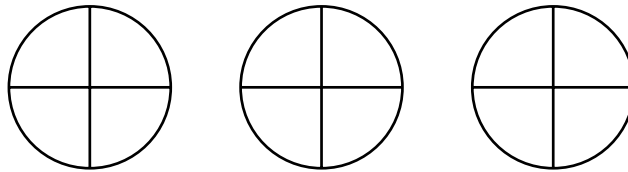
$$345 \times 26 = \square$$

- A.** 8,970
- B.** 7,640
- C.** 2,760
- D.** 2,070

00. What is 1.743 rounded to the **hundredths** place?

- A.** 1.7
- B.** 1.74
- C.** 1.75
- D.** 1.8

- 00.** Risha has 3 cups of flour to make muffins. She uses $\frac{1}{4}$ cup of flour for each muffin. The fraction model shown can be used to find the number of muffins Risha can make with 3 cups of flour.



How many muffins can Risha make with 3 cups of flour?

- A.** 3
- B.** 4
- C.** 9
- D.** 12

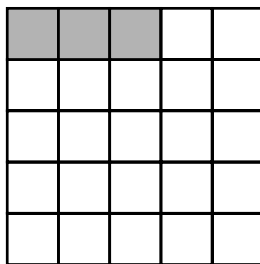
00. A closed shape has 4 sides and 4 angles.

- All of the angles are right angles.
- The sides of the shape are **not** all the same length.

Which statement is true about the shape?

- A.** It is a square but not a rectangle.
- B.** It is a rectangle but not a square.
- C.** It is a square but not a rhombus.
- D.** It is a rhombus but not a square.

- 00.** The square shown has side lengths of 1 foot.



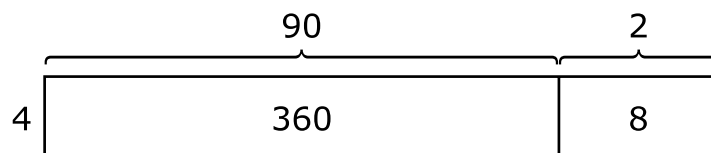
What is the area of the shaded part of the square in square feet?

- A.** $\frac{4}{25}$
- B.** $\frac{3}{25}$
- C.** $\frac{4}{10}$
- D.** $\frac{3}{10}$

00. What is the value of the expression 124.5×10^3 ?

- A.** 1.245
- B.** 12.45
- C.** 124,500
- D.** 1,245,000

- 00.** The model shown represents a division equation.



Which division equation does the model represent?

- A.** $360 \div 8 = 492$
- B.** $4,902 \div 8 = 360$
- C.** $368 \div 4 = 92$
- D.** $902 \div 4 = 368$

00. Which expressions are equivalent to $3 \times (8 + 7) - 4 \times 5$?

Select the **two** correct answers.

A. $3 \times 11 \times 5$

B. $3 \times 15 - 20$

C. $(24 + 3) \times 5$

D. $24 + 7 - 20$

E. $45 - (4 \times 5)$

- 00.** Chris recorded the growth of a plant last week. In one week the plant grew from $\frac{1}{2}$ inch to $1\frac{3}{8}$ inches. How much did the plant grow, in inches, last week?
- A.** $\frac{2}{8}$
- B.** $\frac{7}{8}$
- C.** $1\frac{2}{8}$
- D.** $1\frac{7}{8}$

00. Which equations are true?

Select the **three** correct answers.

A. $21 \times 47 = 987$

B. $83 \times 15 = 498$

C. $96 \times 34 = 3,264$

D. $102 \times 78 = 1,530$

E. $337 \times 22 = 7,414$

- 00.** Brenda divided 0.32 liter of a chemical into 8 containers. She put the same amount of the chemical into each container.

What amount of the chemical, in liters, did Brenda put in each container?

- A.** 0.025 liter
- B.** 0.04 liter
- C.** 0.25 liter
- D.** 0.4 liter

00. Which statements about rounding decimal numbers are true?

Select the **two** correct answers.

- A.** 3.264 rounded to the nearest tenth is 3.2.
- B.** 4.548 rounded to the nearest hundredth is 4.55.
- C.** 5.816 rounded to the nearest hundredth is 5.816.
- D.** 6.413 rounded to the nearest hundredth is 6.42.
- E.** 7.373 rounded to the nearest tenth is 7.4.

- 00.** Which description **best** fits the definition of a unit cube?
- A.** a rectangular prism with edge lengths of 1 unit each
 - B.** a rectangular prism with any edge lengths in units
 - C.** a rectangle with side lengths of 1 unit each
 - D.** a rectangle with any side length in units

- 00.** Ms. Paulsen worked 12 days during the summer. She worked for a total of 92 hours. She worked the same number of hours each day.

How many hours did Ms. Paulsen work each day?

A. $7\frac{6}{12}$

B. $7\frac{8}{12}$

C. $8\frac{3}{12}$

D. $8\frac{7}{12}$

00. Which expression represents “seven less than the product of 20 and 2”?

A. $7 - (20 \div 2)$

B. $7 - (20 \times 2)$

C. $20 \times 2 - 7$

D. $20 \div 2 - 7$

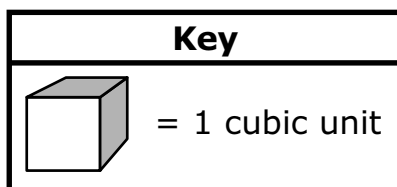
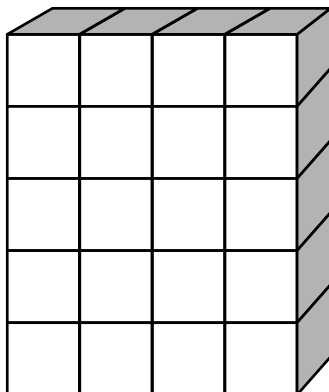
00. Which number is fifty-seven and eight hundredths?

- A.** 57.08
- B.** 57.8
- C.** 800.57
- D.** 857

00. How many meters are in 5.2 kilometers?

- A.** 52
- B.** 520
- C.** 5,200
- D.** 52,000

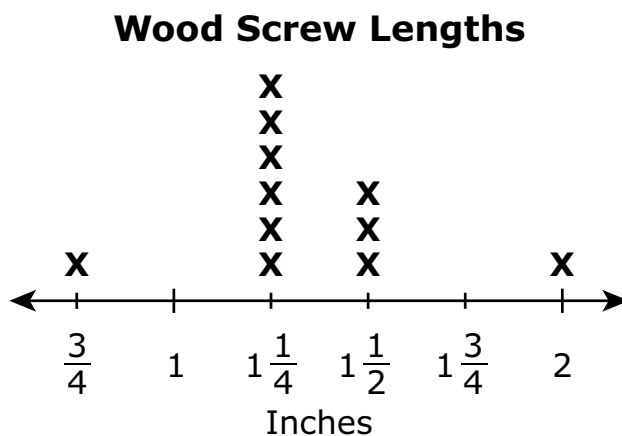
- 00.** A figure packed with unit cubes is shown.



What is the volume of this figure in cubic units?

- A.** 10
- B.** 18
- C.** 20
- D.** 29

- 00.** Kaci found a bag filled with wood screws. She created the line plot shown to keep track of the lengths of screws in the bag.



What is the difference between the longest and the shortest screw lengths in inches?

- A.** $\frac{1}{4}$
- B.** $1\frac{1}{4}$
- C.** 5
- D.** 11

- 00.** The number shown has a digit of 4 and a digit of 2.

516.542

Which statement is true when the positions of the digits 4 and 2 are switched?

- A.** The value of the 4 changes to be 10 times the value it is now.
- B.** The value of the 2 changes to be 100 times the value it is now.
- C.** The value of the 4 changes to be $\frac{1}{10}$ of the value it is now.
- D.** The value of the 2 changes to be $\frac{1}{100}$ of the value it is now.

00. A rectangular rug has a length of 4.6 **meters** and a width of 350 **centimeters**.

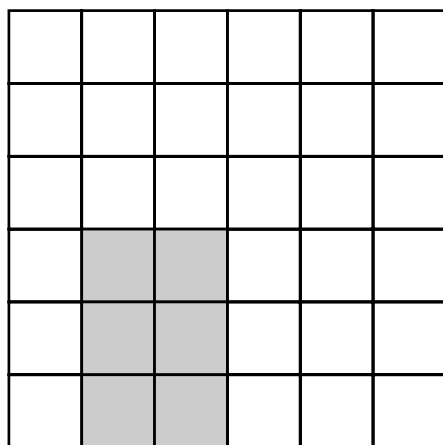
What is the perimeter of the rug in **centimeters**?

- A.** 396
- B.** 792
- C.** 810
- D.** 1,620

- 00.** Mel's Café has a square window with a side length of 1 meter. Mel posts a large menu on the window.

The shaded parts of the model shown represent how much of his window is covered by the menu.

Mel's Window



Which expression gives a way to find the area, in square meters, of the menu?

- A.** $\frac{3}{6} \times \frac{2}{6}$
- B.** $\frac{1}{6} \times \frac{1}{6}$
- C.** 3×2
- D.** 6×6

- 00.** A school is having a fundraiser to buy new playground equipment. They need to raise \$4,620. The school has 5 third grade classrooms, 5 fourth grade classrooms, and 5 fifth grade classrooms. The goal is for each classroom to raise an equal part of the \$4,620.

What is the amount of money each classroom needs to raise to meet its goal?

- A.** \$37
- B.** \$38
- C.** \$308
- D.** \$385

00. Which expression is equivalent to $(3 \times 10) \div 5$?

A. $\frac{3}{10} \div 5$

B. $\frac{3}{10} \times 5$

C. $\frac{3}{5} \div 10$

D. $\frac{3}{5} \times 10$

- 00.** Anthony put two rectangular prisms together to make a solid figure. The total volume of the figure is 184 cubic centimeters. One of the prisms has dimensions of 2 centimeters by 4 centimeters by 5 centimeters.

Which dimensions could be the dimensions of the other prism Anthony used?

- A.** 1 cm by 4 cm by 4 cm
- B.** 3 cm by 6 cm by 8 cm
- C.** 10 cm by 2 cm by 2 cm
- D.** 48 cm by 48 cm by 48 cm

00. An orchard has different kinds of trees.

- $\frac{1}{3}$ are apple trees.
- $\frac{3}{5}$ are pear trees.

What total fraction of the orchard is planted with trees?

- A.** $\frac{3}{15}$
- B.** $\frac{1}{2}$
- C.** $\frac{4}{5}$
- D.** $\frac{14}{15}$

00. Which comparisons are true?

Select the **three** correct answers.

A. $1.9 = 1.900$

B. $2.704 > 2.713$

C. $6.852 > 6.832$

D. $8.126 < 8.129$

E. $10.28 < 1.082$

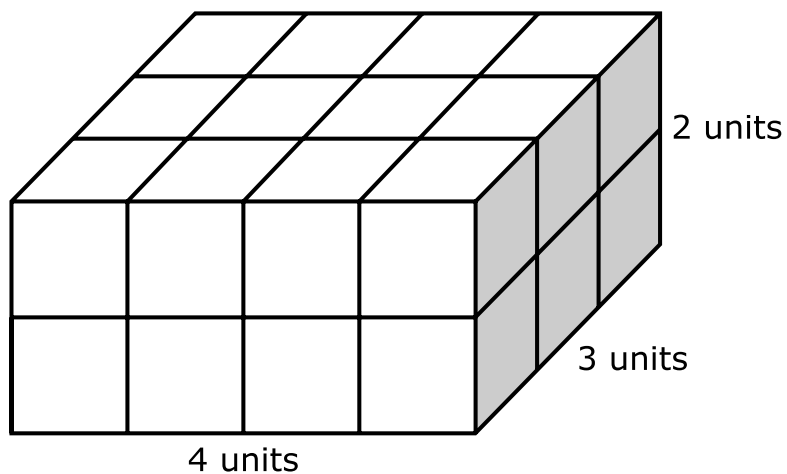
00. There are 2 bottles of glue on a table.

- Each bottle has $\frac{7}{8}$ cup of glue in it.
- The total amount of glue in the bottles, in cups, is represented by the expression $2 \times \frac{7}{8}$.

Which statement about the total amount of glue in the bottles is true?

- A.** $\frac{7}{8}$ is less than 1, so the total amount is less than 1 cup.
- B.** $\frac{7}{8}$ is greater than $\frac{1}{2}$ and less than 1, so the total amount is between 1 and 2 cups.
- C.** 2 is greater than 1 and $\frac{7}{8}$ is less than 1, so the total amount is 2 cups.
- D.** Multiplying 2 by any number makes a product greater than 2, so the total amount is greater than 2 cups.

- 00.** The rectangular prism shown was made using unit cubes.



How many unit cubes were used to make the prism?

- A.** 9
- B.** 12
- C.** 24
- D.** 26

00. Andy is planting pumpkin seeds and watermelon seeds.

- He has already planted 6 pumpkin seeds and 2 watermelon seeds.
- Every minute he will plant 2 more pumpkin seeds and 2 more watermelon seeds.

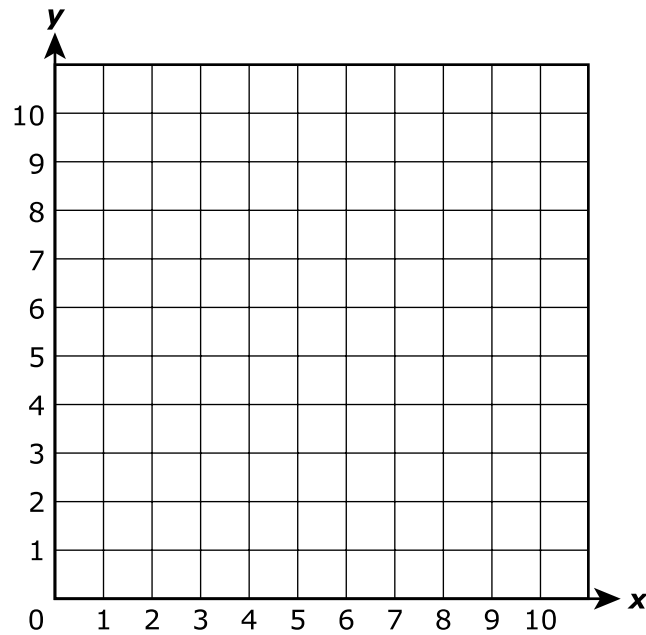
Which sentence best explains the relationship between the total number of pumpkin seeds and the total number of watermelon seeds Andy will have planted after any number of minutes?

- A.** The number of pumpkin seeds is 2 more than the number of watermelon seeds.
- B.** The number of pumpkin seeds is 4 more than the number of watermelon seeds.
- C.** The number of pumpkin seeds is 3 times as many as the number of watermelon seeds.
- D.** The number of pumpkin seeds is 4 times as many as the number of watermelon seeds.

00. Which statement is true?

- A.** All parallelograms have 4 sides of equal length.
- B.** All parallelograms have 4 right angles.
- C.** All rectangles have 4 sides of equal length.
- D.** All rectangles have 4 right angles.

00. A coordinate plane is shown.



Gracie will start at $(0, 0)$ and then move to $(7, 2)$ to plot a point.

Which sentence describes the correct steps for moving to $(7, 2)$ on the coordinate plane?

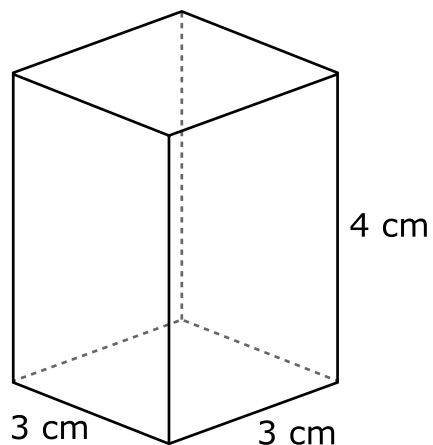
- A.** Go right 7 units, and then go up 2 units.
- B.** Go up 7 units, and then go right 2 units.
- C.** Go right 7 units, and then go right 2 more units.
- D.** Go up 7 units, and then go up 2 more units.

- 00.** A board is 6 feet long. Alan cut the entire board into $\frac{1}{4}$ -foot sections.

How many $\frac{1}{4}$ -foot sections did Alan make from the board?

- A.** $\frac{1}{24}$
- B.** $1\frac{1}{2}$
- C.** $15\frac{1}{4}$
- D.** 24

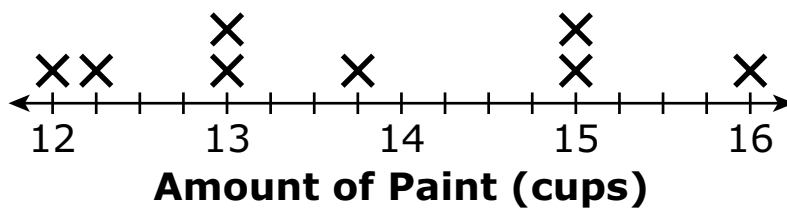
- 00.** The rectangular prism shown has dimensions given in centimeters.



What is the volume of the rectangular prism, in cubic centimeters?

- A.** 48
- B.** 36
- C.** 12
- D.** 10

00. The line plot shows cups of blue paint in different containers.



| Key |
|-----------------|
| X = 1 Container |

If all the paint is combined and redistributed equally, how much paint, in cups, will be in each container?

- A. 8
- B. $10\frac{1}{4}$
- C. $13\frac{3}{4}$
- D. $15\frac{5}{8}$

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