Tennessee Comprehensive Assessment Program

TCAP

Math
Grade 3 Item Release

TN Department of Education

Item Information

Item Code:	TN092317	Grade Level:	3
Standard Code:	3.OA.A.2	Position No:	1
Standard Text:	Interpret the dividend, divisor, and quotient in whole number division equations (e.g., 28 ÷ 7 can be interpreted as 28 objects divided into 7 equal groups with 4 objects in each group or 28 objects divided so there are 7 objects in each of the 4 equal groups).		
Reporting Category:	1: Computation with Whole Numbers		
Calculator:	Z		
Correct Answer:	D	DOK Level: 2	Item Type: O

Jorge has 27 seeds and 9 flower pots. He plants the same number of seeds in each flower pot.

Which expression shows how many seeds Jorge plants in each flower pot?

A. $27 + 9$

B. $27 - 9$

C. 27×9

D. $27 \div 9$

Item Information

Item Code:	TN232792	Grade Level:	3
Standard Code:	3.OA.A.4	Position No:	2
Standard Text:	Determine the unknown whole number in a multiplication or division equation relating three whole numbers within 100.		
Reporting Category:	1: Computation with Whole Numbers		
Calculator:	N		
Correct Answer:	A	DOK Level: 1	Item Type: O

Here is an equation.

$9 \times ? = 54$

What number makes the equation **true**?

A. 6

B. 5

C. 7

D. 9

Item Information

Item Code:	TN982284	Grade Level:	3
Standard Code:	3.NBT.A.1	Position No:	3
Standard Text:	Round whole numbers to the nearest 10 or 100 using understanding of place value.		
Reporting Category:	1: Computation with Whole Numbers		
Calculator:	Z		
Correct Answer:	B	DOK Level: 2	Item Type: O

Here is a number rounded to the nearest 100.

600

Which of these could be the original number?

A. 527

B. 550

C. 650

D. 681

Item Information

Item Code:	TN832521	Grade Level:	3
Standard Code:	3.NBT.A.3	Position No:	4
Standard Text:	Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations.		
Reporting Category:	1: Computation with Whole Numbers		
Calculator:	N		
Correct Answer:	A	DOK Level: 1	Item Type: O

Which equation has the same missing number as $70 \times 3 = \_\_$?

A. $70 + 70 + 70 = \_\_$

B. $30 + 30 + 30 = \_\_$

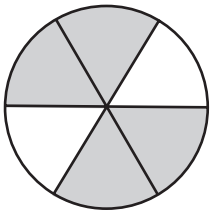
C. $70 + 3 = \_\_$

D. $7 \times 3 = \_\_$

Item Information

Item Code:	TN592385	Grade Level:	3
Standard Code:	3.NF.A.1	Position No:	5
Standard Text:	Understand a fraction, 1/b, as the quantity formed by 1 part when a whole is partitioned into b equal parts (unit fraction); understand a fraction a/b as the quantity formed by a parts of size 1/b.		
Reporting Category:	2: Fractions		
Calculator:	Z		
Correct Answer:	A	DOK Level: 1	Item Type: O

This circle shows equal-sized parts.



What fraction of the circle is shaded?

A. $\frac{4}{6}$

B. $\frac{2}{4}$

C. $\frac{2}{6}$

D. $\frac{1}{4}$

Item Information

Item Code:	TN302377	Grade Level:	3
Standard Code:	3.NF.A.3.b	Position No:	6
Standard Text:	Recognize and generate simple equivalent fractions (e.g., 1/2 = 2/4, 4/6 = 2/3) and explain why the fractions are equivalent using a visual fraction model.		
Reporting Category:	2: Fractions		
Calculator:	N		
Correct Answer:	A,D	DOK Level: 1	Item Type: O

Which fractions are equivalent to $\frac{2}{4}$? Choose the **two** correct answers.

A. $\frac{1}{2}$

B. $\frac{1}{3}$

C. $\frac{4}{6}$

D. $\frac{4}{8}$

E. $\frac{6}{8}$

Item Information

Item Code:	TN906048	Grade Level:	3
Standard Code:	3.OA.D.8	Position No:	7
Standard Text:	Solve two-step contextual problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.		
Reporting Category:	3: Number Relationships and Patterns		
Calculator:	Z		
Correct Answer:	C	DOK Level: 2	Item Type: O

Wilbur has 400 stickers.

- He gives 9 stickers each to 8 of his friends.
- He keeps the remaining stickers for himself.

Which is the **best** estimate of the number of stickers that Wilbur keeps for himself?

A. 40

B. 80

C. 330

D. 380

Item Information

Item Code:	TN056093	Grade Level:	3
Standard Code:	3.OA.D.9	Position No:	8
Standard Text:	Identify arithmetic patterns (including patterns in the addition and multiplication tables) and explain them using properties of operations.		
Reporting Category:	3: Number Relationships and Patterns		
Calculator:	Z		
Correct Answer:	B	DOK Level: 2	Item Type: O

Here is a number pattern.

$27, 36, 45, 54, 63, 72$

The pattern continues.

Which expression could be used to find the next number in the pattern?

A. $72 + 8$

B. $72 + 9$

C. $72 + 11$

D. $72 + 27$

Item Information

Item Code:	TN876078	Grade Level:	3
Standard Code:	3.OA.D.9	Position No:	9
Standard Text:	Identify arithmetic patterns (including patterns in the addition and multiplication tables) and explain them using properties of operations.		
Reporting Category:	3: Number Relationships and Patterns		
Calculator:	Z		
Correct Answer:	C	DOK Level: 2	Item Type: O

This part of a multiplication table shows patterns of numbers. One number is missing.

30	35	40	45
36	42	48	54
42		56	63
48	56	64	72

What number is missing from the patterns in the multiplication table?

A. 43

B. 48

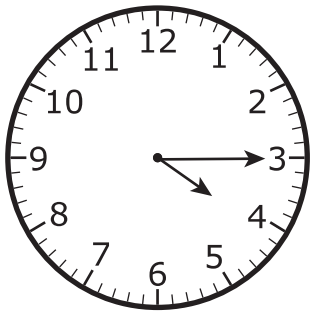
C. 49

D. 50

Item Information

Item Code:	TN072864	Grade Level:	3
Standard Code:	3.MD.A.1	Position No:	10
Standard Text:	Tell and write time to the nearest minute and measure time intervals in minutes. Solve contextual problems involving addition and subtraction of time intervals in minutes.		
Reporting Category:	4: Geometric and Measurement Concepts		
Calculator:	Z		
Correct Answer:	D	DOK Level: 2	Item Type: O

A game starts at the time shown on this clock.



The game ends 50 minutes after it starts.

At what time does the game end?

A. 4:50

B. 4:53

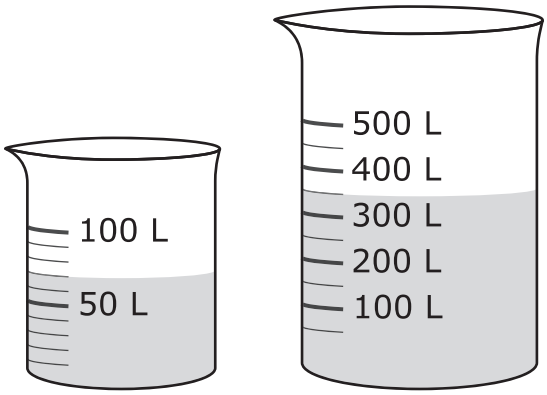
C. 5:01

D. 5:05

Item Information

Item Code:	TN432498	Grade Level:	3
Standard Code:	3.MD.A.2	Position No:	11
Standard Text:	Measure the mass of objects and liquid volume using standard units of grams (g), kilograms (kg), milliliters (ml), and liters (l). Estimate the mass of objects and liquid volume using benchmarks.		
Reporting Category:	4: Geometric and Measurement Concepts		
Calculator:	Z		
Correct Answer:	A	DOK Level: 1	Item Type: O

The two containers shown have water in them.



How many **more** liters of water are in Container Y than are in Container X?

A. 280

B. 400

C. 420

D. 600

Item Information

Item Code:	TN562867	Grade Level:	3
Standard Code:	3.MD.B.3	Position No:	12
Standard Text:	Draw a scaled pictograph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step ″how many more″ and ″how many less″ problems using information presented in scaled graphs.		
Reporting Category:	4: Geometric and Measurement Concepts		
Calculator:	Z		
Correct Answer:	C	DOK Level: 2	Item Type: O

This pictograph shows the numbers of crayons of different colors that Malia has.

Malia's Crayons

Color	Number of Crayons
Blue	
Green	
Orange	
Red	
Purple	

Key
 = 4 crayons

How many **fewer** purple crayons does Malia have than green crayons?

A. 3

B. 5

C. 12

D. 20

Item Information

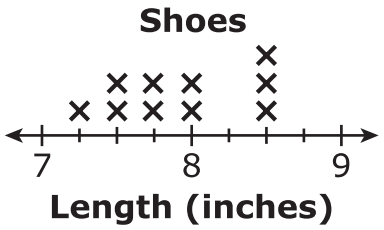
Item Code:	TN642319	Grade Level:	3
Standard Code:	3.MD.B.4	Position No:	13
Standard Text:	Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units: whole numbers, halves, or quarters.		
Reporting Category:	4: Geometric and Measurement Concepts		
Calculator:	Z		
Correct Answer:	D	DOK Level: 2	Item Type: O

Wesley measures the length of the shoes worn by each of ten friends. Here are the lengths, in inches (in).

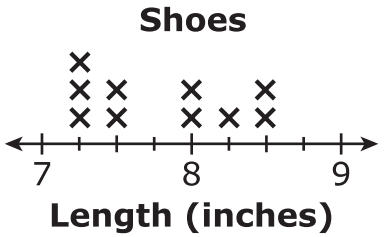
$7\frac{1}{4}$ in	$8\frac{1}{2}$ in	$7\frac{3}{4}$ in	8in	$8\frac{1}{2}$ in
$7\frac{1}{2}$ in	$7\frac{1}{4}$ in	$7\frac{1}{2}$ in	8in	$7\frac{1}{4}$ in

Which line plot shows the lengths of the shoes?

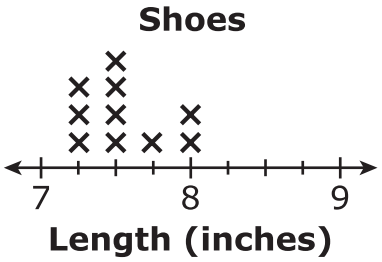
A.



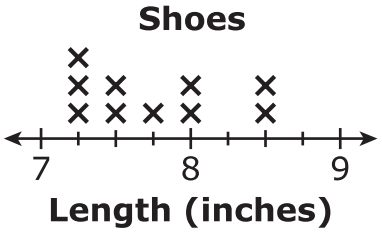
B.



C.



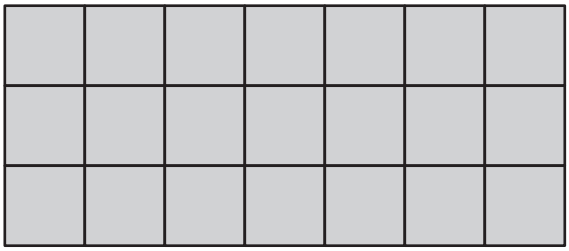
D.



Item Information

Item Code:	TN002295	Grade Level:	3
Standard Code:	3.MD.C.7	Position No:	14
Standard Text:	Relate area of rectangles to the operations of multiplication and addition.		
Reporting Category:	4: Geometric and Measurement Concepts		
Calculator:	Z		
Correct Answer:	D	DOK Level: 1	Item Type: O

Unit squares are used to make this rectangle.



Which expression can be used to find the area, in square units, of the rectangle?

A. $4 + 8$

B. 4×8

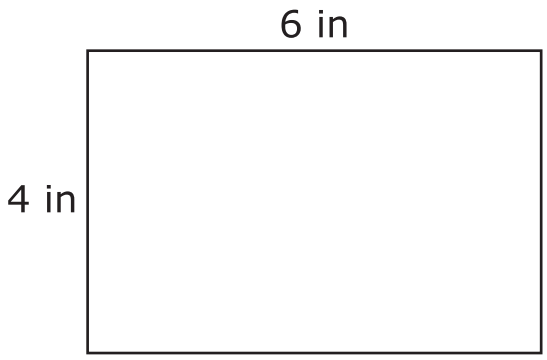
C. $3 + 7$

D. 3×7

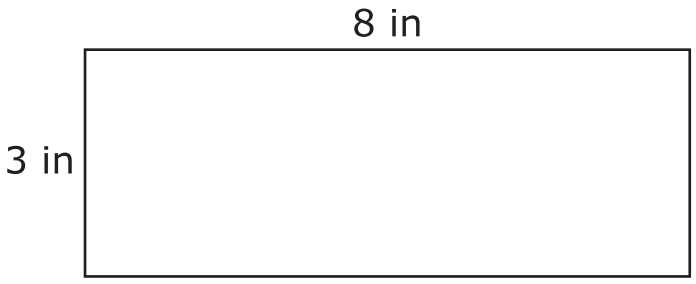
Item Information

Item Code:	TN532714	Grade Level:	3
Standard Code:	3.MD.D.8	Position No:	15
Standard Text:	Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.		
Reporting Category:	4: Geometric and Measurement Concepts		
Calculator:	Z		
Correct Answer:	A,C	DOK Level: 2	Item Type: O

Here are Ann's rectangle and Bill's rectangle.



Ann's Rectangle



Bill's Rectangle

Which statements about the figures are **true**? Choose the **two** correct answers.

A. Ann's Rectangle has a perimeter of 20 inches.

B. Bill's Rectangle has a perimeter of 24 inches.

C. Both rectangles have the same area.

D. Ann's Rectangle has a greater area than Bill's Rectangle.

E. Both rectangles have the same perimeter.