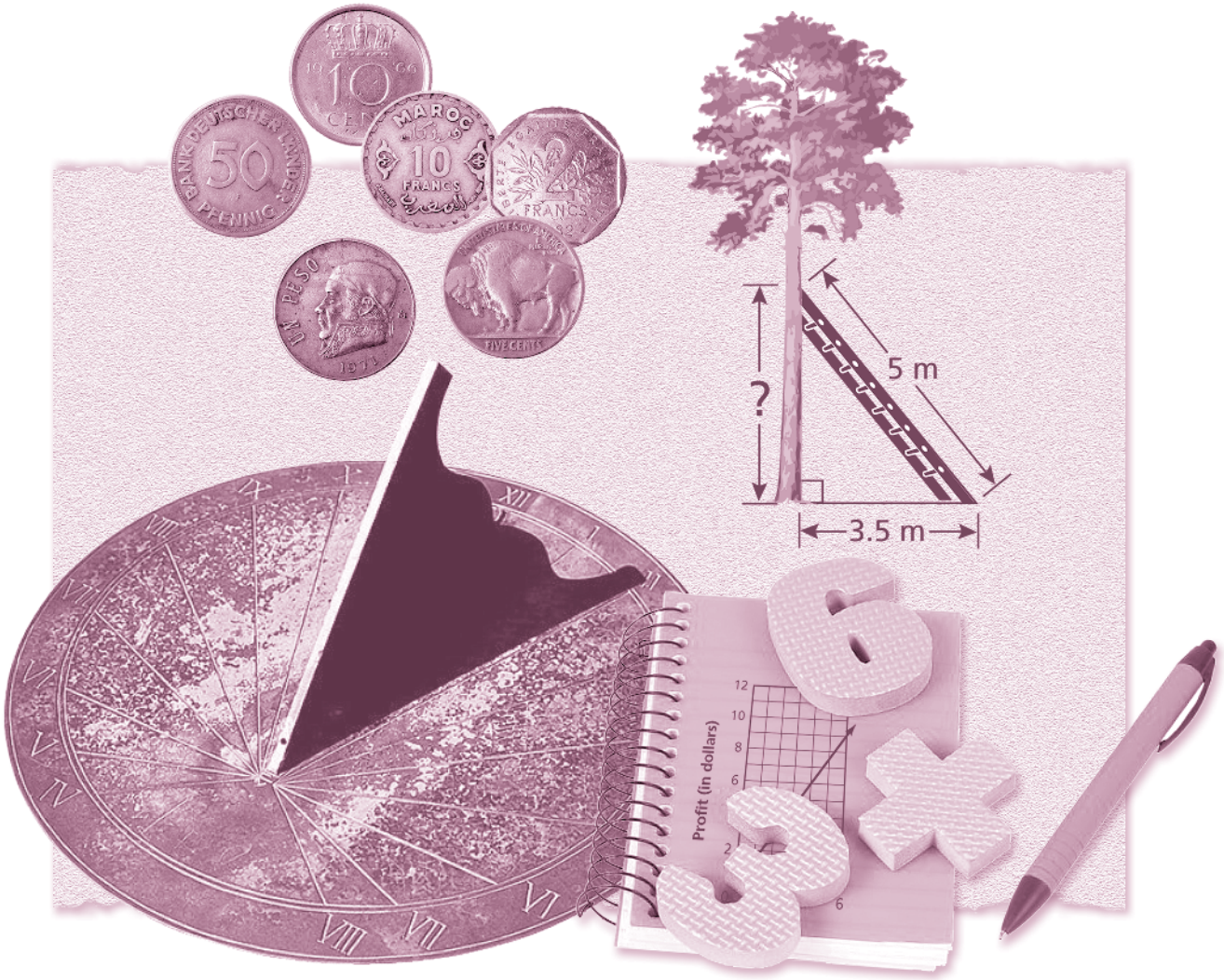
Preparing for the

TENNESSEE

End of Course Assessment



Math Foundations II

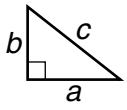
18032

EOC Math Foundations II Reference Page

Abbreviations
A = area
P = perimeter
ℓ = length
w = width

Area (A) of a Rectangle
$A = \ell w$

Perimeter (P)
Any Polygon: P = sum of side lengths
Rectangle: $P = 2\ell + 2w$

Pythagorean Theorem
$a^2 + b^2 = c^2$


n	$\sqrt{n}$	n^2
1	1.000	1
2	1.414	4
3	1.732	9
4	2.000	16
5	2.236	25
6	2.449	36
7	2.646	49
8	2.828	64
9	3.000	81
10	3.162	100
11	3.317	121
12	3.464	144
13	3.606	169
14	3.742	196
15	3.873	225
16	4.000	256
17	4.123	289
18	4.243	324
19	4.359	361
20	4.472	400
21	4.583	441
22	4.690	484
23	4.796	529
24	4.899	576
25	5.000	625

PEARSON
Educational Measurement

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Contents

Preparing for the End of Course Assessment Program Math Foundations II

Introduction

What is this test?

The *Tennessee End of Course Assessment Program* was established to meet the Tennessee mandate for end of course assessments in Tennessee secondary schools. The sample questions in this pamphlet are representative of the item types and item formats that will be used in the actual test.

What are the questions testing?

The questions assess the content standards covered by each course as described in the Performance Indicators developed by the Tennessee State Department of Education and listed on their Web site.

Who will be tested?

All students taking Math Foundations II will be tested. Tests may be given midyear for block schedules or at the end of the year.

How many questions are there?

Each test contains 60 multiple-choice questions.

How long will the tests take?

Students will have ample time to read and answer each of the questions. They will be given 75 minutes to complete each test.

How will the tests be scored?

The answers to the multiple-choice questions will be scored by machine. The test results provide information about how well students understand the course content.

How do I use these sample questions?

The questions in the pamphlet are, for the most part, representative samples of the types of questions that will be on the Math Foundations II test. The questions are presented in a format similar to that which will be used in the actual test. Reporting Categories and Performance Indicators have been provided for the questions in this pamphlet only.

These Reporting Categories group the Math Foundations II Performance Indicators together. When students receive their reports from the test, these Reporting Categories will be used to report scores on student performance. The questions in the actual test will not have this identifying information.

These questions can be used for a classroom learning session or as an individual, short practice test to prepare students for the actual test. Various item formats have been selected in order to familiarize students with the actual test format.

The items in this Preparation Brochure will **not** be found on the End of Course tests. The number of items in this Preparation Brochure does not reflect the emphasis of content on the test.

An answer key for the sample questions is provided at the end of this pamphlet.

Calculators

Students may use their own calculators during the test. The use of calculators is **optional**, and no questions on the test require the use of a calculator. Sharing calculators during testing is not permitted.

The following types of calculators/devices may NOT be used during the test:

- pocket organizers
- electronic writing pads or input devices
- Some examples of prohibited calculators are:
  - Casio models: CFX-9970G, Algebra FX 2.0
  - Hewlett-Packard models: HP-40G, HP-49G
  - Texas Instruments models: TI-89, TI-92, Voyage 200
- calculators that can communicate (transfer data or information) wirelessly with other student calculators/devices
- cell phones, PSPs™, and/or iPods®

Students may use any four-function, scientific, or graphing calculator that does not have any of the above features.

What tips are there for taking the test?

RELAX: It is normal to be somewhat nervous before the test. Remember that the score is only one of a number of measures of your performance.

LISTEN: Listen to and read the test directions carefully. Ask for an explanation of the directions if you do not understand them. Follow the directions.

PLAN YOUR TIME: Do not spend too much time on any one question. If a question seems to take too long, skip it and return to it later if you have extra time.

First answer all the questions you are sure about.

THINK: If you are not sure how to answer a question, read it again and try your best to answer the question. Rule out answer choices that you know are incorrect and choose from those that remain.

Reporting Category 1: Number Sense & Number Theory

Numbers 1 through 9

Performance Indicator: Choose the prime factorization of a two-digit composite whole number.

1 What is the prime factorization of 30?

A $1 \bullet 30$

B $2 \bullet 15$

C $2 \bullet 3 \bullet 5$

D $5 \bullet 6$

EM010184

2 What is the prime factorization of 99?

F $1 \bullet 99$

G $3 \bullet 33$

H $9 \bullet 9$

J $3 \bullet 3 \bullet 11$

EM010329

Performance Indicator: Compare a fraction to a decimal using less than, greater than, and equals symbols.

3 Which of the following comparisons is true?

A $\frac{3}{8} < 0.375$

B $\frac{3}{8} = 0.375$

C $\frac{7}{8} < 0.85$

D $\frac{7}{8} = 0.85$

EM010130

Performance Indicator: Identify the opposite of any rational number.

4 What is the opposite of $-\frac{2}{5}$?

F $\frac{5}{2}$

G $\frac{2}{5}$

H $-\frac{2}{5}$

J $-\frac{5}{2}$

EM010209

5 What is the opposite of -4.2?

A 4.2

B 2.4

C -2.4

D -4.2

EM030010

Performance Indicator: Choose an equivalent exponential form of a one-variable monomial given in factored form (only first-degree variables with positive integral coefficients).

6 Which expression is equivalent to $4 \bullet n \bullet n \bullet 3 \bullet n \bullet n \bullet n \bullet n \bullet 5 \bullet n$?

F $12n^4$

G $12n^7$

H $60n^4$

J $60n^7$

EM010044

7 **Simplify:** $4 \bullet k \bullet k \bullet k \bullet 2$

A $8k^3$
B $6k^3$
C $8 + 3k$
D $6 + 3k$

EM030012

Performance Indicator: Extend a numerical pattern using only whole numbers.

8 What is the missing term in the following quadratic pattern?

2, 3, 6, 11, 18, ___, 38, 51

F 25
G 26
H 27
J 28

EM010135

9 What is the missing term in the following skip-counting pattern?

46, 31, 38, 23, 30, ___, 22, 7

A 15
B 25
C 37
D 45

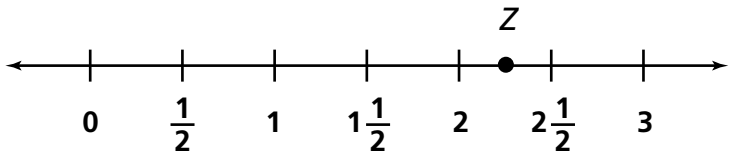
EM010217

Reporting Category 2: Estimation & Operations

Numbers 10 through 17

Performance Indicator: Select the best estimate for the coordinate of a given point on a number line (rationals).

10 Which number is closest to Point *Z* on the number line?



F 2

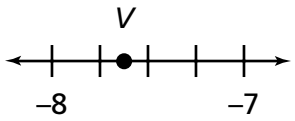
G $2\frac{1}{4}$

H $2\frac{2}{3}$

J 3

EM010118

11 Which of these is the best estimate of the coordinate of Point *V* on the number line?



A −8.6

B −8.4

C −7.6

D −7.4

EM030011

Performance Indicator: Multiply a fraction by a multiple of its denominator (denominator less than or equal to 25).

12 **Multiply:** $\frac{7}{18} \bullet 108$

F 6

G 13

H 36

J 42

EM020194

Performance Indicator: Apply order of operations to evaluate numerical expressions (whole numbers only; no exponents or grouping symbols).

13 **Simplify:** $2 + 3 \bullet 4 - 1$

A 11

B 13

C 15

D 19

EM010114

14 **Simplify:** $18 \div 3 - 2 + 4 \bullet 3$

F -12

G -8

H 16

J 24

EM010143

Performance Indicator: Multiply an integer by a one-variable binomial.

15 **Simplify:** $3(9x + 4)$

A $9x + 12$

B $12x + 7$

C $27x + 4$

D $27x + 12$

EM020283

Performance Indicator: Apply order of operations to evaluate numerical expressions containing whole numbers, exponents (1 and/or 2), and no more than two sets of grouping symbols.

16 **Simplify:** $4 - 3^2 \bullet (8 - 5)$

F -73

G -49

H -23

J -14

EM010146

17 **Evaluate:** $\dfrac{100 - 25 \div 5 + 20}{200 - 10^2}$

A $\dfrac{99}{100}$

B $\dfrac{7}{20}$

C $\dfrac{23}{36}$

D $\dfrac{23}{20}$

EM010197

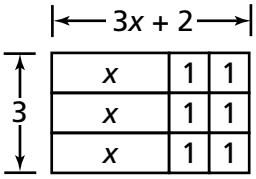
Reporting Category 3: Expressions, Equations, and Inequalities

Numbers 18 through 27

Performance Indicator: Choose the correct area representation of the product of an integer and a one-variable, first-degree binomial.

18 Which of these is an area representation of $3(3x + 2)$?

F



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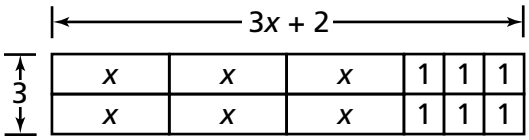

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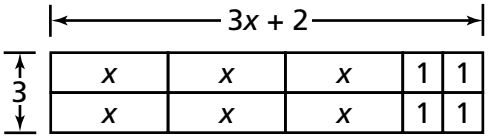

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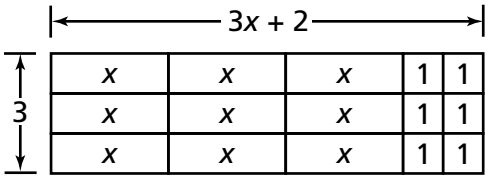


EM020272

Performance Indicator: Solve a one-step linear equation with a variable on only one side of the equation (integral coefficients and constants).

19 **Solve for *p*:** $-12p = 96$

A -108

B -8

C 8

D 108

EM020197

20 **Solve for *x*:** $x + 14 = 31$

F 16
G 17
H 23
J 45

EM010148

Performance Indicator: Solve a two-step linear equation with a variable on only one side of the equation (integral coefficients and constants).

21 **Solve for *x*:** $150 = 12x + 6$

A 144
B 132
C 13
D 12

EM010257

22 What is the value of *y* in the following equation?

$$4y - 8 = 36$$

F 7
G 11
H 17
J 40

EM020001

Performance Indicator: Translate a one-variable verbal expression into an algebraic expression (no more than two operations).

23 Manu had x grapes. He ate 3 more than $\frac{1}{4}$ of the grapes. Which expression represents the number of grapes Manu ate?

A $\frac{1}{4}x - 3$

B $\frac{1}{4}x + 3$

C $3x - \frac{1}{4}$

D $3x + \frac{1}{4}$

EM020289

Performance Indicator: Evaluate a first-degree algebraic expression given the values for the variables (up to three variables).

24 What is the value of the expression $5x + y - 2z$ when $x = -1$, $y = -4$, and $z = 3$?

F -23

G -15

H -7

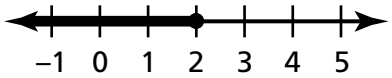
J -3

EM020098

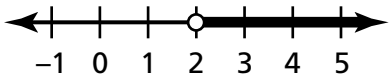
Performance Indicator: Select the number line graph that models a given one-step linear inequality (variables may not have negative coefficients).

25 Which graph represents the solution to $5y < 10$?

A



B



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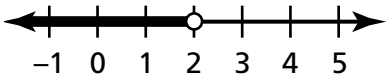

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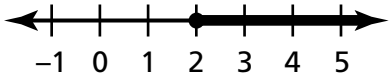
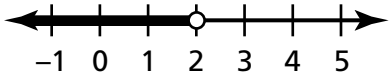


EM020092

26 Which graph represents the solution to $n + 6 > 4$?

F



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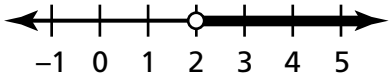

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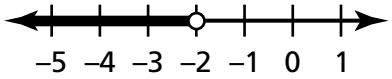

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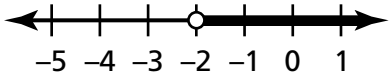


EM020093

Performance Indicator: Simplify a first-degree algebraic expression without parentheses by combining like terms (integral coefficients and constants).

27 **Simplify:** $12x - 6 - x + 2$

A $11x - 4$

B $11x - 8$

C $13x + 4$

D $13x + 8$

EM020290

Reporting Category 4: Real-World Problems
Numbers 28 through 35

Performance Indicator: Select ratios and proportions to represent real-world problems such as scale drawings and samplings (all ratios are positive integers to positive integers).

28 Marisela is 5 feet tall. In a photograph Marisela is 3 inches tall, and her sister Sonia is 2 inches tall. Which proportion can be used to calculate Sonia's actual height?

F $\frac{5}{3} = \frac{x}{2}$

G $\frac{3}{5} = \frac{x}{2}$

H $\frac{2}{5} = \frac{x}{3}$

J $\frac{5}{2} = \frac{x}{3}$

EM020175

29 On a map, there are 4 inches (in.) between the cities of Bells and Paris. The actual distance is 60 miles (mi). What scale was used to create this map?

A 1 in. = 15 mi

B 1 in. = 20 mi

C 1 in. = 30 mi

D 1 in. = 56 mi

EM021040

Performance Indicator: Select a reasonable solution for a real-world division problem in which the remainder must be considered.

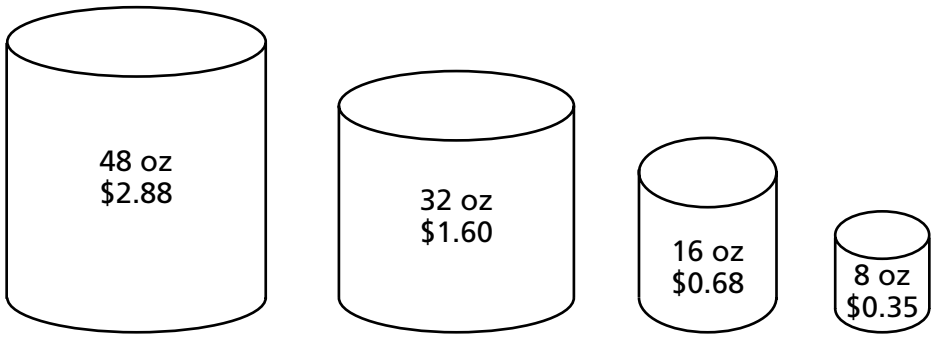
30 Jin has 152 tiles that need to be stored in storage boxes. If each box can hold 35 tiles, what is the minimum number of storage boxes Jin will need?

F 4
G 5
H 12
J 16

EM020293

Performance Indicator: Calculate the cost per unit to determine the best buy (no more than four samples).

31 Which can of tomato sauce has the lowest cost per ounce?



Note: The figures are not drawn to scale.

A Can A
B Can B
C Can C
D Can D

EM020168

32 For a school picnic, the senior class needs to buy paper plates. Paper plates are available in three different packages, as shown in the table below.

PAPER PLATE PRICES

Package	Number of Plates	Cost
A	65	$8.88
B	165	$11.37
C	175	$9.97

Which statement is true?

F Package A is the most expensive per plate.

G Package B is the least expensive per plate.

H Package B is more expensive per plate than Package A.

J Package C is more expensive per plate than Package B.

EM020204

Performance Indicator: Determine the number of possible outcomes for a simple experiment using a list, tree diagram, or the multiplication counting principle.

33 Lei flipped a fair coin 3 times. How many ways can she get 2 tails and 1 head if order does not matter?

A 1

B 2

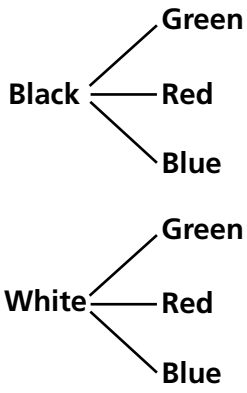
C 3

D 4

EM020251

34 In one bag, Peyton has two marbles of equal size: 1 white and 1 black. In a second bag, he has three marbles of equal size: 1 blue, 1 red, and 1 green. Which tree diagram shows all of the possible outcomes if Peyton randomly selects 1 marble from each bag?

F



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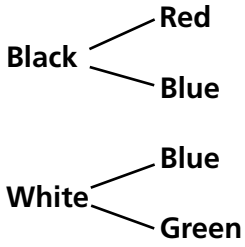

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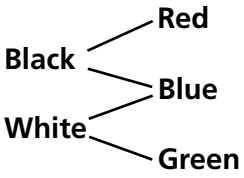

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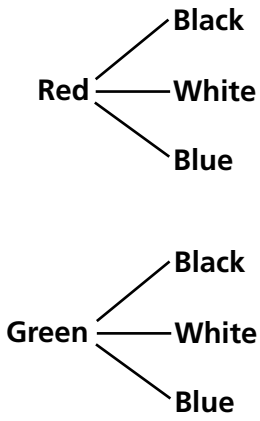


EM020116

Performance Indicator: Determine the median of a given set of real-world data (even number of data).

35 Coach Herrera timed the 100-yard dash during the sprint relays at the local track meet. The times, in seconds, of 10 runners are listed below.

12.25, 14.05, 15.5, 11.89, 12.06, 14.14, 13.01, 12.72, 11.92, 12.37

What is the median time of the runners, rounded to the nearest hundredth of a second?

A 12.06

B 12.55

C 12.99

D 13.10

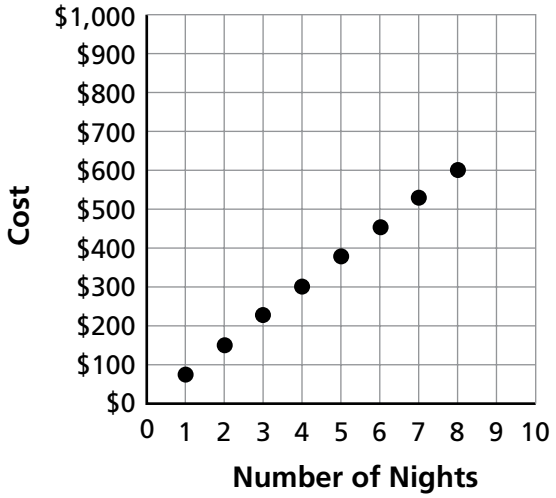
EM020274

Reporting Category 5: Graphs & Data Analysis

Numbers 36 through 46

Performance Indicator: Select the appropriate linear graph that models a real-world situation or vice versa.

36 The graph below shows the amount of money Ivan spent for different numbers of nights at a hotel on his vacation. Which statement about the hotel cost is best represented by the graph below?



F Ivan spent $75 per night.

G Ivan spent $100 per night.

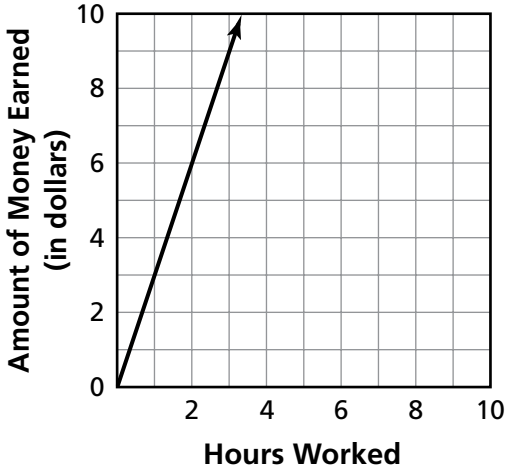
H Ivan spent $300 per night.

J Ivan spent $600 per night.

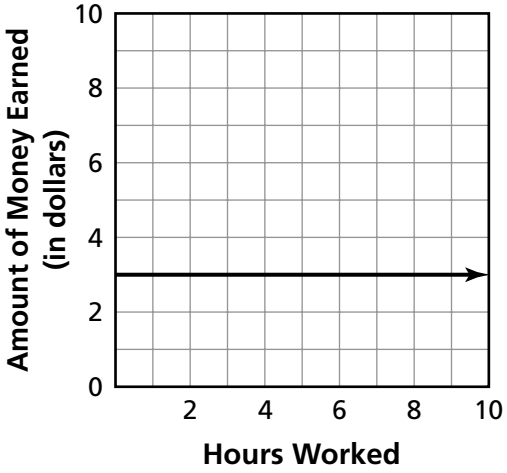
EM020210

37 Emily earns money babysitting in her neighborhood. She charges $3.00 for every hour she works. Which of the graphs below best represents her earnings from babysitting?

A



C



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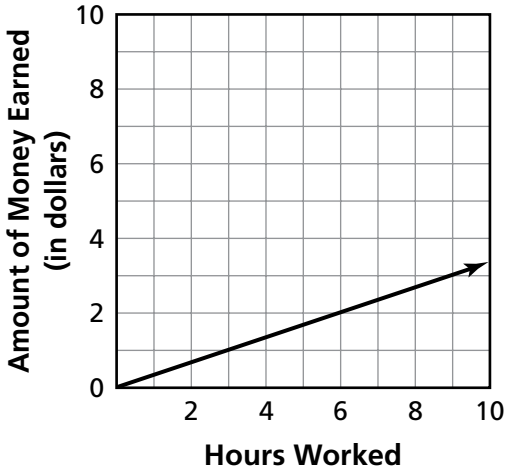

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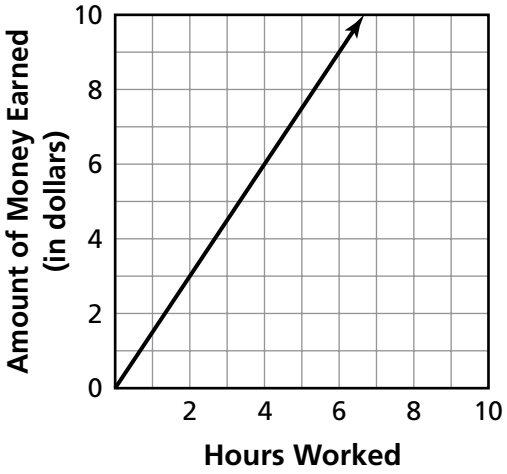


EM020262

Performance Indicator: Determine the mean of a given set of data (no more than five one- or two-digit numbers).

38 The table below shows the number of gallons of water Sara used each day from Monday through Friday.

Day of Week	Number of Gallons
Monday	15
Tuesday	8
Wednesday	14
Thursday	10
Friday	8

What is the mean number of gallons she used?

F 8
G 10
H 11
J 14

EM010323

39 The high temperatures, in degrees Fahrenheit, for five days are listed below.

89, 71, 78, 89, 83

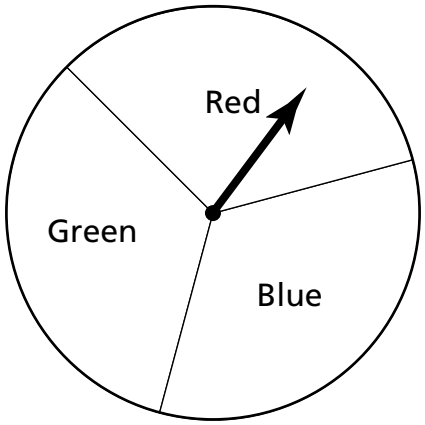
What is the mean temperature, in degrees Fahrenheit, for these five days?

A 82
B 83
C 86
D 89

EM020300

Performance Indicator: Determine the probability of a single event (e.g., rolling a die or using a spinner).

40 Linus spins the arrow on a fair spinner divided into congruent sections as shown below.



What is the probability that the arrow on the spinner will land on the section labeled Red on the first spin?

F $\frac{1}{4}$

G $\frac{1}{3}$

H $\frac{1}{2}$

J $\frac{2}{3}$

EM010324

41 Wade has a fair six-sided number cube that is labeled with the numbers 1 through 6. If he rolls the cube once, what is the probability that he will roll a number greater than 3?

A $\frac{1}{6}$

B $\frac{1}{3}$

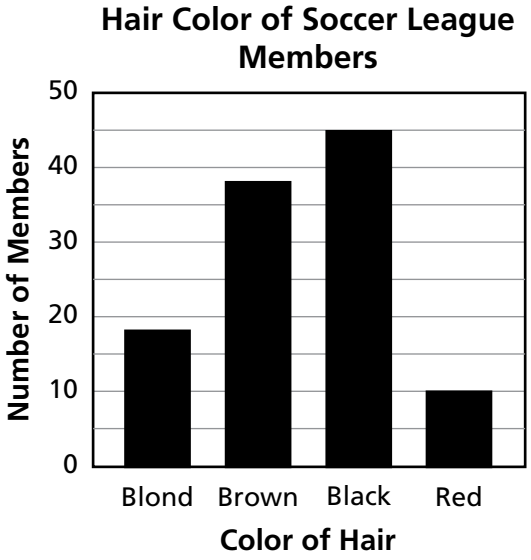
C $\frac{1}{2}$

D $\frac{2}{3}$

EM020212

Performance Indicator: Interpret bar graphs representing real-world data.

42 A soccer league recorded the hair color of each of its members.



Which conclusion is best supported by the information displayed in the bar graph?

F The number of league members with red hair or blond hair was fewer than the number with brown hair.

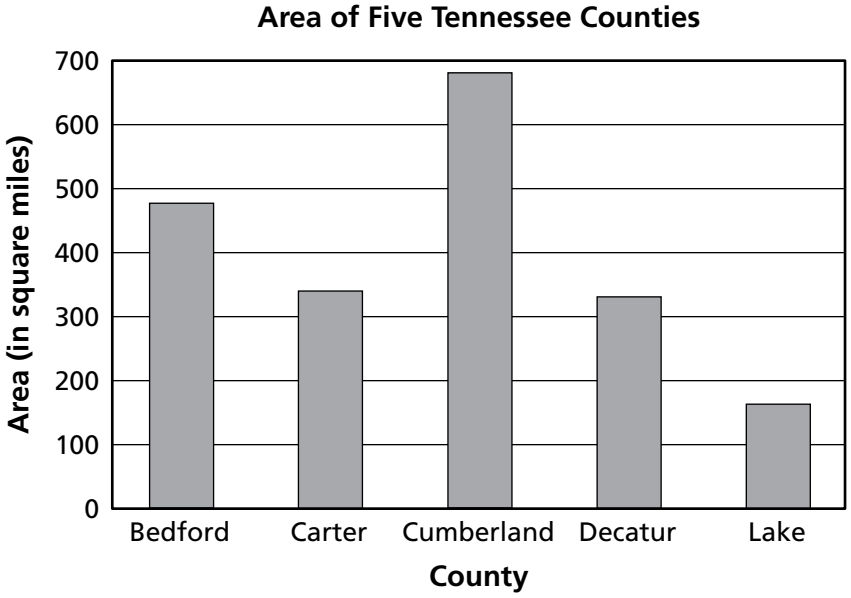
G The number of league members with brown hair was seven more than the number with black hair.

H The number of league members with blond hair was more than twice the number with red hair.

J The number of league members with black hair was five times the number with red hair.

EM020304

43 The areas, in square miles, of five Tennessee counties are shown in the graph below.



Which conclusion is <u>best</u> supported by the graph?

A The area of Lake County is twice the area of Carter County.

B The area of Cumberland County is twice the area of Carter County.

C The combined area of Carter and Decatur counties is fewer than 600 square miles.

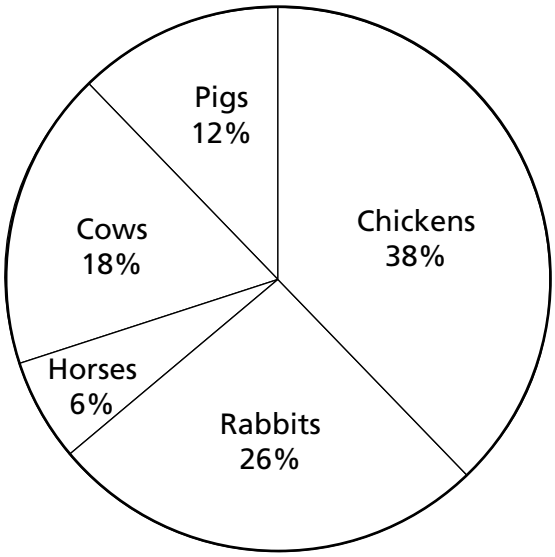
D The combined area of Bedford and Lake counties is more than 700 square miles.

EM030015

Performance Indicator: Interpret circle graphs (pie charts) representing real-world data.

44 The circle graph below depicts the percentage of each type of animal on the Jones' farm.

Animals on the Farm

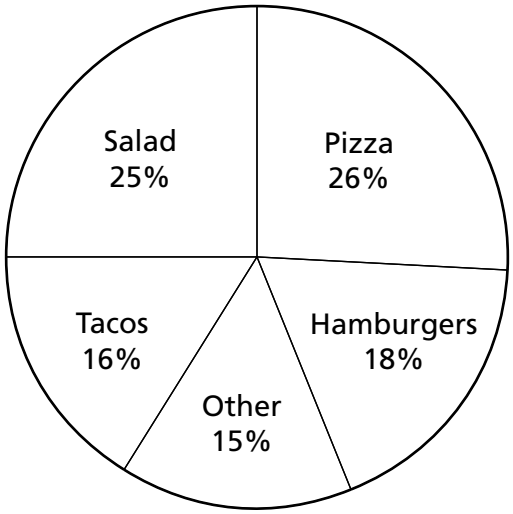


If there are 400 animals on the Jones' farm, how many pigs are there?

F 24
G 33
H 48
J 72

EM010326

45 Jeanette surveyed 100 students to determine their favorite item on the school lunch menu. The results are shown below.



If 10 of the students in the "Other" category now prefer hamburgers, and 5 of the students in the "Other" category now prefer tacos instead, which statement below is now true?

A Fewer students prefer hamburgers than salad.

B The same number of students prefer tacos as those who prefer pizza.

C More students prefer tacos than salad.

D More students prefer hamburgers than pizza.

EM020266

Performance Indicator: Determine the median from a given stem-and-leaf plot.

46 The weights of 8 defensive ends for a professional football team are shown in the stem-and-leaf plot.

Weights of Defensive Ends

25	0
26	5 5 9
27	5 8
28	0
29	0

Key
27|5 represents 275 pounds

What is the median weight?

F 265 pounds

G 269 pounds

H 272 pounds

J 275 pounds

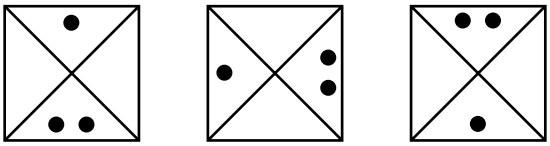
EM010231

Reporting Category 6: Geometry & Spatial Sense

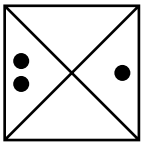
Numbers 47 through 55

Performance Indicator: Extend a pattern of geometric figures.

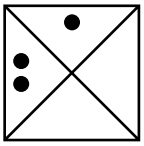
47 Which figure should come next if the pattern continues?



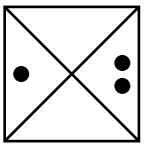
A



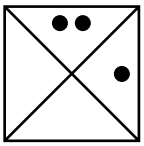
B



C



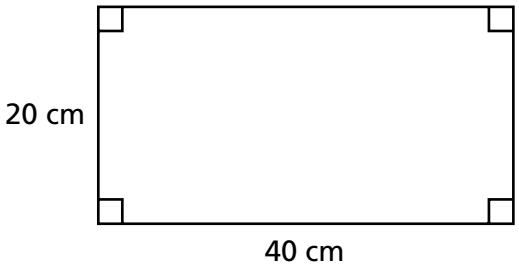
D



EM020311

Performance Indicator: Determine the perimeter of any geometric figure.

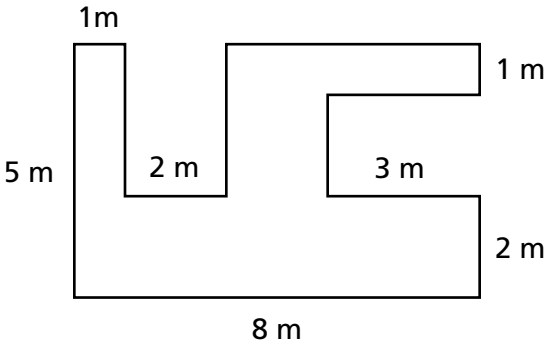
48 What is the perimeter of the following rectangle?



F 60 cm
G 120 cm
H 400 cm
J 800 cm

EM010161

49



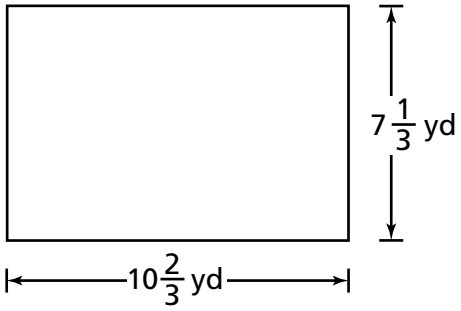
What is the perimeter of the figure shown above?

A 38 m
B 33 m
C 30 m
D 22 m

EM020305

Performance Indicator: Apply the given formula to determine the area of a rectangular figure with rational dimensions.

50



What is the area of the rectangle shown above?

F 18 square yards

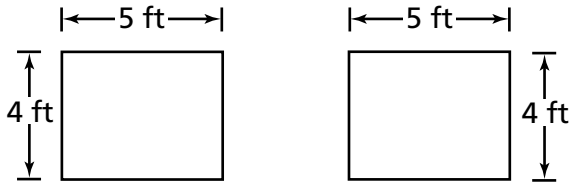
G 36 square yards

H $70\frac{2}{9}$ square yards

J $78\frac{2}{9}$ square yards

EM020314

51 Reynaldo had two rectangular posters with the dimensions shown below.



What is the total area, in square feet $\left(\text{ft}^2\right)$, of the two posters?

A 18 ft^2

B 20 ft^2

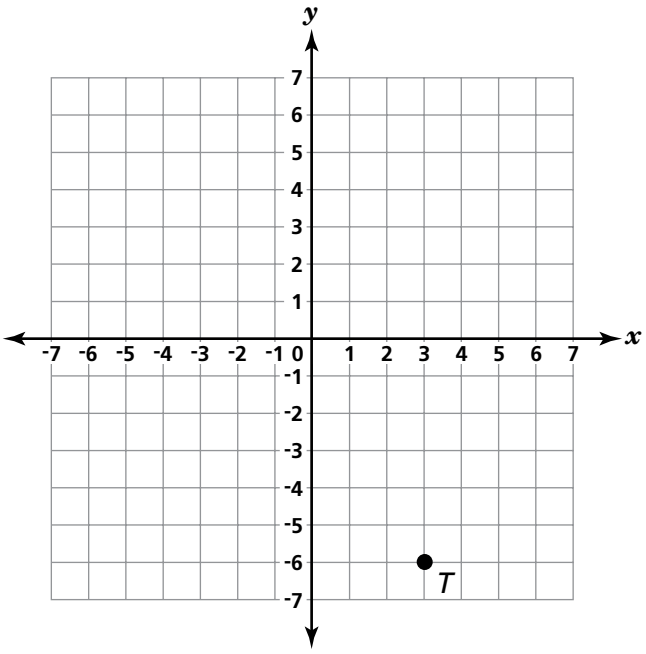
C 36 ft^2

D 40 ft^2

EM020248

Performance Indicator: Identify the coordinates for a given point.

52 Which ordered pair best represents the coordinates of Point *T* on the graph?



F $(-6, 3)$

G $(-3, 6)$

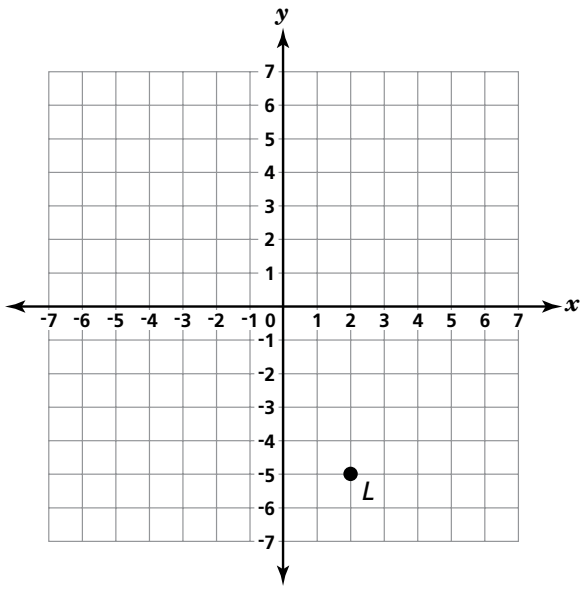
H $(3, -6)$

J $(6, -3)$

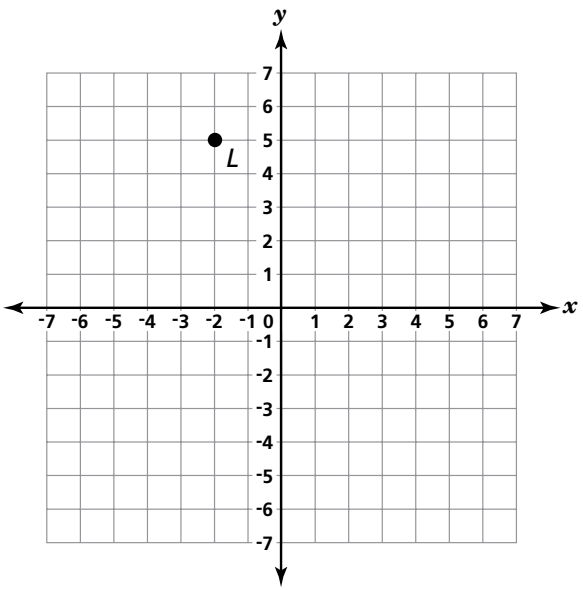
EM030013

53 Which graph <u>best</u> represents Point L at $(-5, 2)$?

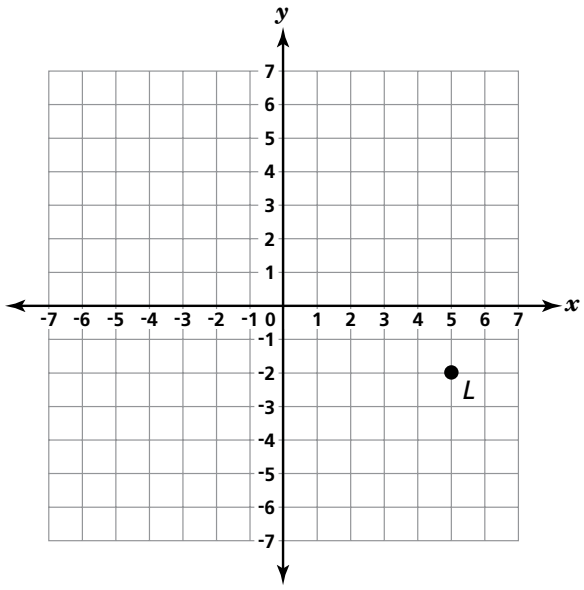
A



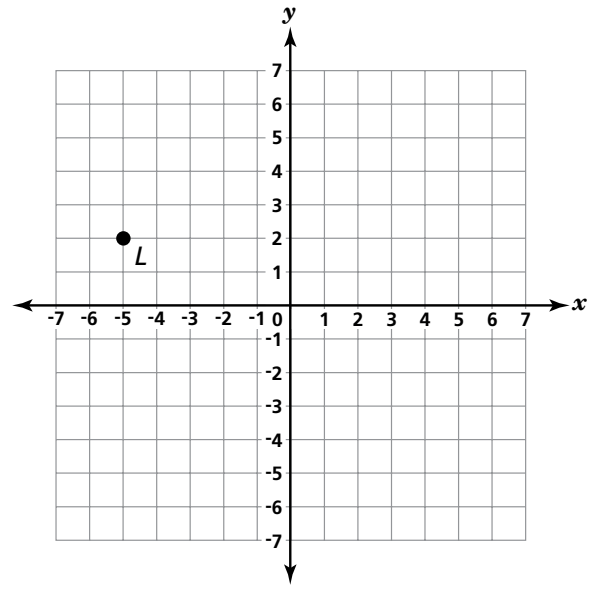
C



B



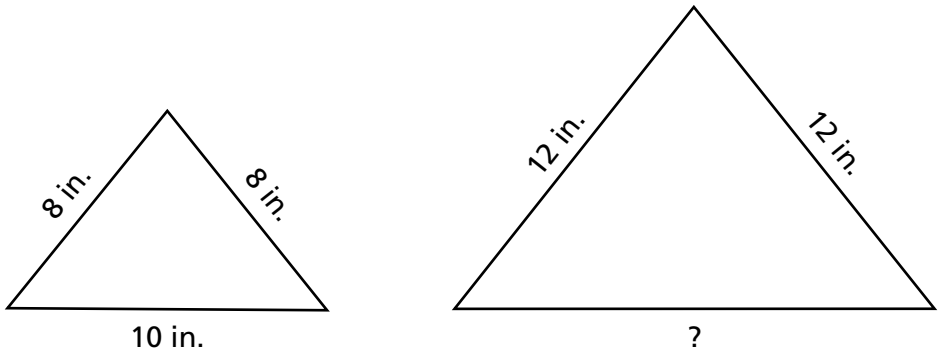
D



EM030016

Performance Indicator: Find the missing length of a side given two similar triangles.

54 The triangles shown are similar.



How long is the third side of the triangle on the right?

F 6.6 in.

G 9.6 in.

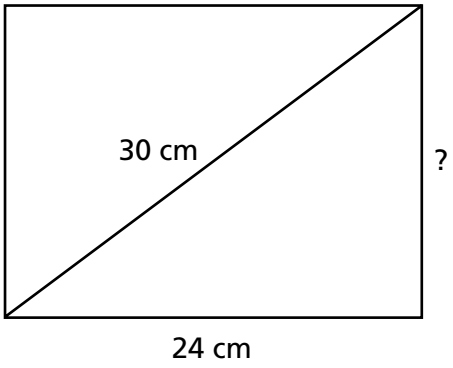
H 14 in.

J 15 in.

EM030014

Performance Indicator: Use the Pythagorean Theorem to determine the length of a missing side of a right triangle (no radicals).

55 A rectangle has a diagonal of 30 centimeters (cm). If the length of one side of the rectangle is 24 cm, what is the length of the shorter side?



A 38 cm

B 24 cm

C 18 cm

D 6 cm

EM020176

Answer Key

Reporting Category 1:	Number Sense & Number Theory	
Item Number	**Correct Answer**	**Performance Indicator**
1	C	EM1.1.A Choose the prime factorization of a two-digit composite whole number.
2	J	EM1.1.A Choose the prime factorization of a two-digit composite whole number.
3	B	EM1.1.B Compare a fraction to a decimal using less than, greater than, and equals symbols.
4	G	EM1.2.A Identify the opposite of any rational number.
5	A	EM1.2.A Identify the opposite of any rational number.
6	J	EM1.2.C Choose an equivalent exponential form of a one-variable monomial given in factored form (only first-degree variables with positive integral coefficients).
7	A	EM1.2.C Choose an equivalent exponential form of a one-variable monomial given in factored form (only first-degree variables with positive integral coefficients).
8	H	EM2.1.B Extend a numerical pattern using only whole numbers.
9	A	EM2.1.B Extend a numerical pattern using only whole numbers.

Answer Key

Reporting Category 2:		Estimation & Operations
Item Number	**Correct Answer**	**Performance Indicator**
10	**G**	EM1.2.B Select the best estimate for the coordinate of a given point on a number line (rationals).
11	**C**	EM1.2.B Select the best estimate for the coordinate of a given point on a number line (rationals).
12	**J**	EM1.2.C Multiply a fraction by a multiple of its denominator (denominator less than or equal to 25).
13	**B**	EM1.1.D Apply order of operations to evaluate numerical expressions (whole numbers only; no exponents or grouping symbols).
14	**H**	EM1.1.D Apply order of operations to evaluate numerical expressions (whole numbers only; no exponents or grouping symbols).
15	**D**	EM1.2.D Multiply an integer by a one-variable binomial.
16	**H**	EM1.2.F Apply order of operations to evaluate numerical expressions containing whole numbers, exponents (1 and/or 2), and no more than two sets of grouping symbols.
17	**D**	EM1.2.F Apply order of operations to evaluate numerical expressions containing whole numbers, exponents (1 and/or 2), and no more than two sets of grouping symbols.

Reporting Category 3:		Expressions, Equations, and Inequalities
Item Number	**Correct Answer**	**Performance Indicator**
18	J	EM4.3.A Choose the correct area representation of the product of an integer and a one-variable, first-degree binomial.
19	B	EM2.2.A Solve a one-step linear equation with a variable on only one side of the equation (integral coefficients and constants).
20	G	EM2.2.A Solve a one-step linear equation with a variable on only one side of the equation (integral coefficients and constants).
21	D	EM2.2.B Solve a two-step linear equation with a variable on only one side of the equation (integral coefficients and constants).
22	G	EM2.2.B Solve a two-step linear equation with a variable on only one side of the equation (integral coefficients and constants).
23	B	EM2.2.C Translate a one-variable verbal expression into an algebraic expression (no more than two operations).
24	G	EM2.2.D Evaluate a first-degree algebraic expression given the values for the variables (up to three variables).
25	C	EM2.3.A Select the number line graph that models a given one-step linear inequality (variables may not have negative coefficients).
26	J	EM2.3.A Select the number line graph that models a given one-step linear inequality (variables may not have negative coefficients).
27	A	EM2.3.B Simplify a first-degree algebraic expression without parentheses by combining like terms (integral coefficients and constants).

Answer Key

Reporting Category 4:		Real-World Problems
Item Number	**Correct Answer**	**Performance Indicator**
28	**F**	EM1.3.A Select ratios and proportions to represent real-world problems such as scale drawings and samplings (all ratios are positive integers to positive integers).
29	**A**	EM1.3.A Select ratios and proportions to represent real-world problems such as scale drawings and samplings (all ratios are positive integers to positive integers).
30	**G**	EM1.2.E Select a reasonable solution for a real-world division problem in which the remainder must be considered.
31	**C**	EM4.2.A Calculate the cost per unit to determine the best buy (no more than four samples).
32	**F**	EM4.2.A Calculate the cost per unit to determine the best buy (no more than four samples).
33	**C**	EM5.1.B Determine the number of possible outcomes for a simple experiment using a list, tree diagram, or the multiplication counting principle.
34	**F**	EM5.1.B Determine the number of possible outcomes for a simple experiment using a list, tree diagram, or the multiplication counting principle.
35	**B**	EM5.3.A Determine the median of a given set of real-world data (even number of data).

Reporting Category 5:		Graphs & Data Analysis
Item Number	**Correct Answer**	**Performance Indicator**
36	F	EM2.2.E Select the appropriate linear graph that models a real-world situation or vice versa.
37	A	EM2.2.E Select the appropriate linear graph that models a real-world situation or vice versa.
38	H	EM5.1.A Determine the mean of a given set of data (no more than five one- or two-digit numbers).
39	A	EM5.1.A Determine the mean of a given set of data (no more than five one- or two-digit numbers).
40	G	EM5.1.C Determine the probability of a single event (e.g., rolling a die or using a spinner).
41	C	EM5.1.C Determine the probability of a single event (e.g., rolling a die or using a spinner).
42	F	EM5.2.A Interpret bar graphs representing real-world data.
43	B	EM5.2.A Interpret bar graphs representing real-world data.
44	H	EM5.2.B Interpret circle graphs (pie charts) representing real-world data.
45	D	EM5.2.B Interpret circle graphs (pie charts) representing real-world data.
46	H	EM5.2.C Determine the median from a given stem-and-leaf plot.

Reporting Category 6:		Geometry & Spatial Sense
Item Number	**Correct Answer**	**Performance Indicator**
47	**A**	EM2.1.A Extend a pattern of geometric figures.
48	**G**	EM3.1.A Determine the perimeter of any geometric figure.
49	**A**	EM3.1.A Determine the perimeter of any geometric figure.
50	**J**	EM4.1.A Apply the given formula to determine the area of a rectangular figure with rational dimensions.
51	**D**	EM4.1.A Apply the given formula to determine the area of a rectangular figure with rational dimensions.
52	**H**	EM3.2.A Identify the coordinates for a given point.
53	**D**	EM3.2.A Identify the coordinates for a given point.
54	**J**	EM3.2.B Find the missing length of a side given two similar triangles.
55	**C**	EM3.3.A Use the Pythagorean Theorem to determine the length of a missing side of a right triangle (no radicals).