



CALCULATOR NOT PERMITTED—ITEMS 1–3

1

Janet wanted to create a square pyramid and a rectangular prism using 1 straw for each edge of each figure. How many more straws will she need for the rectangular prism than for the square pyramid?

- A 0
- B 2
- C 4
- D 8

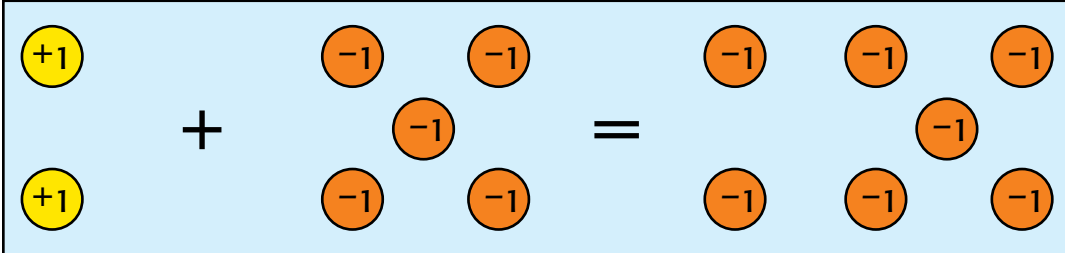
2

KEY	
	represents +1
	represents -1

Using the key shown, which correctly models the expression below?

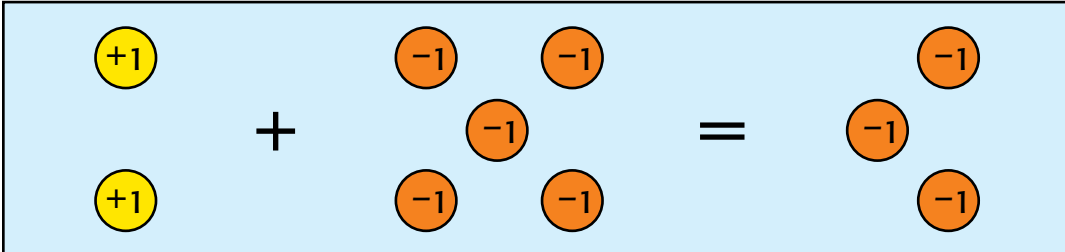
$$2 + -5$$

A



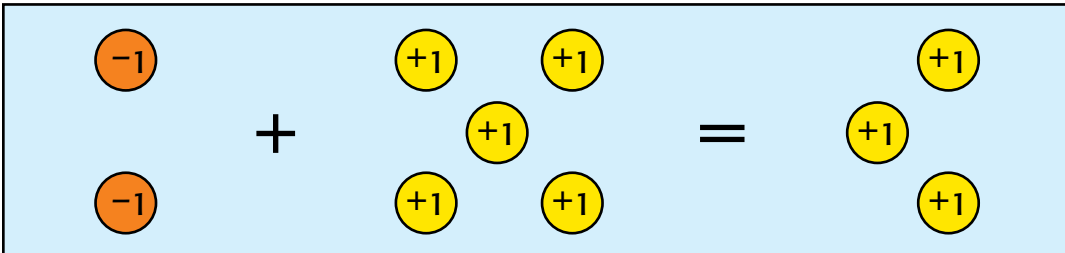
Model A shows 2 yellow circles (+1) and 5 orange circles (-1) on the left of an equals sign, and 3 orange circles (-1) on the right. This represents $2 + (-5) = 3$.

B



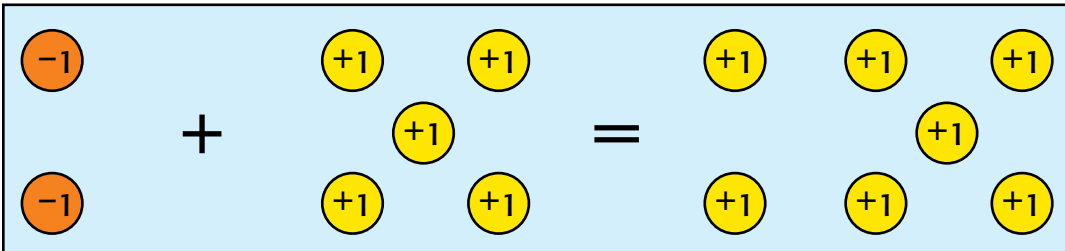
Model B shows 2 yellow circles (+1) and 5 orange circles (-1) on the left of an equals sign, and 2 orange circles (-1) on the right. This represents $2 + (-5) = 2$.

C



Model C shows 2 orange circles (-1) and 5 yellow circles (+1) on the left of an equals sign, and 3 yellow circles (+1) on the right. This represents $(-2) + 5 = 3$.

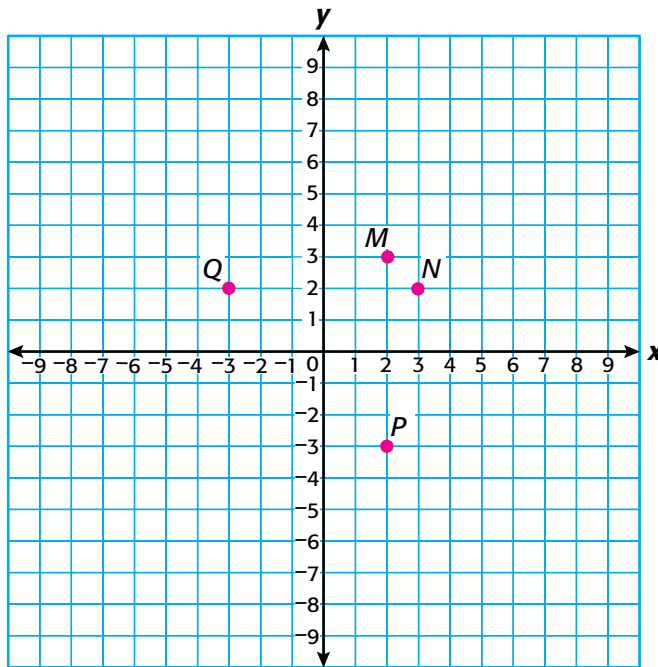
D



Model D shows 2 orange circles (-1) and 5 yellow circles (+1) on the left of an equals sign, and 8 yellow circles (+1) on the right. This represents $(-2) + 5 = 8$.

3

Which point is best represented by $(-3, 2)$ on the coordinate grid below?



- A M
- B N
- C P
- D Q

CALCULATOR PERMITTED—ITEMS 4–10 and A–B

4

The regular price of a shirt James bought was \$24.99. The shirt was on sale for 15% off the regular price. What was the sale price of James's shirt?

- A \$24.84
- B \$21.24
- C \$9.99
- D \$3.75

5

Which measure for the list of data below has the greatest value?

60, 62, 72, 72, 72, 79, 82, 82, 85, 89, 89, 92, 92, 95, 99

- A Mean
- B Median
- C Mode
- D Range

6

On April 26, Ben made the statement, "In two days my birthday will have been two weeks ago."

What is the date of Ben's birthday?

- A April 12
- B April 13
- C April 14
- D April 15

7

What is the value of the expression below when $p = \frac{1}{8}$?

$$16p - 10$$

- A -8
- B -2
- C 8
- D 12

8

A rule for a function table is given below.

Multiply the input value by 2 and add that product to 10 to get the output value

Which function table below only has values that follow the rule above?

A


Input	Output
-2	6
0	0
2	14
3	16

B

Input	Output
-2	14
0	0
2	4
3	6

C

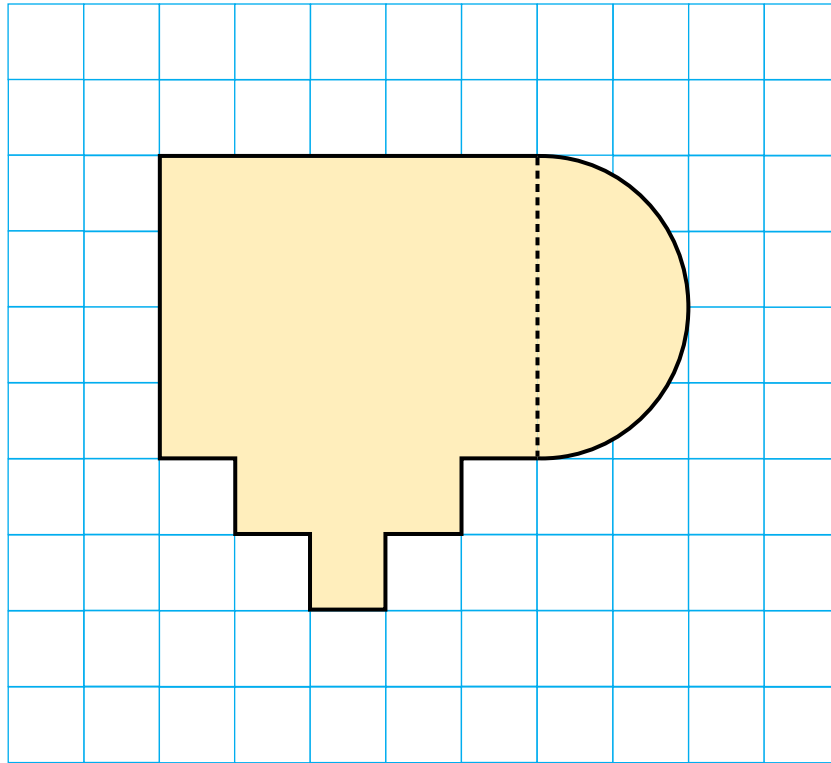
Input	Output
-2	14
0	10
2	4
3	6


 **D**


Input	Output
-2	6
0	10
2	14
3	16

9

Which is closest to the area of the figure shown?

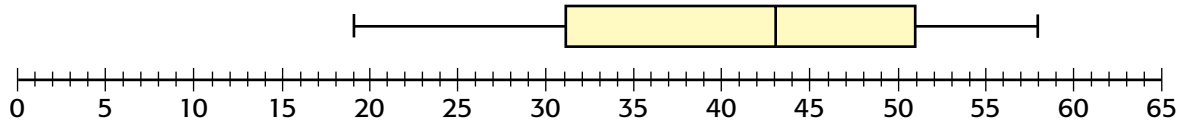


 = 1 square unit

- A 26.0 units²
- B 28.0 units²
-  C 30.3 units²
- D 36.6 units²

10

The ages, in years, of employees at a fabric store are represented by the box-and-whisker plot shown.



Which best represents the age range of the youngest 25% of employees?

- A 19–31
- B 19–58
- C 31–43
- D 31–51

MATHEMATICS OPEN-RESPONSE ITEM A

A

The Pep Club wants to sell spirit bracelets as a fund-raiser. The equation $y = 2x - 30$ represents the profits earned, y , from selling spirit bracelets. The number of bracelets sold is represented by x .

1. In your answer document, copy and complete the function table below.

x	y
0	
10	
20	
30	
40	

2. On the grid in your answer document, graph the x - and y -values from the table above on a coordinate plane.
3. How many bracelets would need to be sold for the Pep Club to make a profit of \$60? Show your work and/or explain your answer.

BE SURE TO LABEL YOUR RESPONSES 1, 2, AND 3.

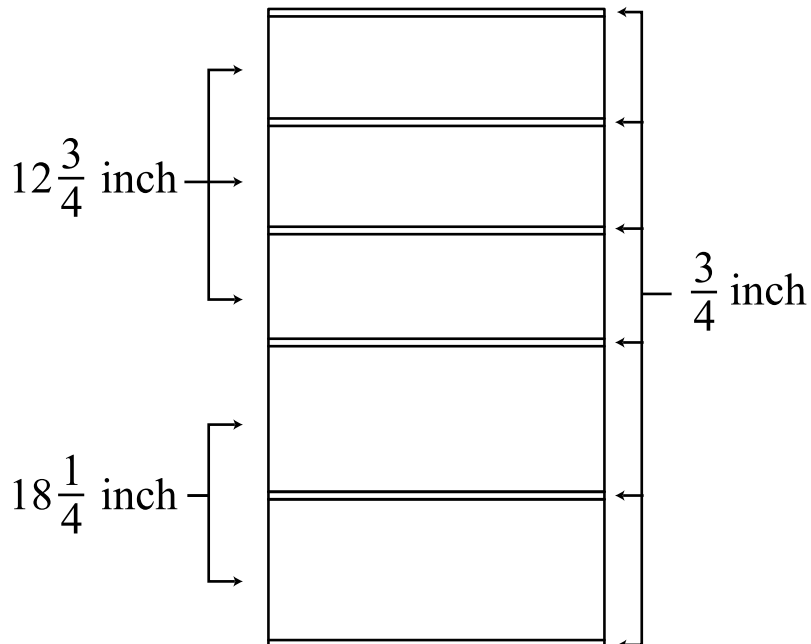
RUBRIC FOR MATHEMATICS OPEN-RESPONSE ITEM A

SCORE	DESCRIPTION
4	The student earns 4 points. The response contains no incorrect work.
3	The student earns $3-3\frac{1}{2}$ points.
2	The student earns $2-2\frac{1}{2}$ points.
1	The student earns $\frac{1}{2}-1\frac{1}{2}$ points, or some minimal understanding shown.
0	The student earns 0 points. No understanding is shown.
B	Blank—No Response. A score of "B" will be reported as "NA." (No attempt to answer the item. Score of "0" assigned for the item.)

MATHEMATICS OPEN-RESPONSE ITEM B

B

Charlene is building a bookcase, as shown in the scale drawing below. The top three shelves within the bookcase each have $12\frac{3}{4}$ inches of space above them. The two lower shelves each have $18\frac{1}{4}$ inches of space above them. The thickness of the wood used for the shelves, including the one used for the top of the bookcase, is $\frac{3}{4}$ of an inch.



1. What is the total height of the bookcase, in inches? Write your answer as a decimal. Show all your work and/or explain your answer.
2. What percentage of the height of the bookcase is from the shelves? Round your answer to the nearest whole percent. Show your work and/or explain your answer.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

**PART III Item Correlation with Curriculum Frameworks–
2009 Augmented Benchmark Grade 7**

Released Items for Mathematics*

Item	Strand	Content Standard	Student Learning Expectation
1	G	8	1
2	N	2	4
3	G	10	1
4	N	3	6
5	D	15	2
6	M	13	1
7	A	5	4
8	A	4	1
9	M	13	7
10	D	14	3
A	A	6	2
B	N	3	2

*Only the predominant Strand, Content Standard, and Student Learning Expectation is listed.

Non-Released Items for Mathematics*

Item	Strand	Content Standard	Student Learning Expectation
1	N	1	3
2	N	2	1
3	D	15	1
4	G	8	3
5	G	8	6
6	M	13	7
7	D	15	2
8	A	5	2
9	G	10	2
10	G	9	2
11	G	8	2
12	D	17	1
13	A	4	3
14	A	6	1
15	M	13	5
A	G	8	6
B	M	12	3
C	D	17	2