



Practice Items

Grade 8

Mathematics

Examiner's Copy and Student Materials

Virginia Department of Education

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Item 1

Option:

Here is an equation with the variable x . (Point to student materials.) This says $7x$ equals 14. Seven times what number equals 14? 1, 2, or 3

A

B

C

Student Response

1

2

3

Item 2

Option:

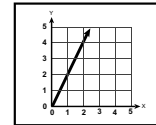
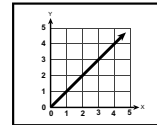
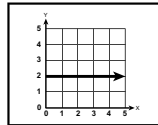
Here are three line graphs. (Point to student materials.) Slope is how steep a line is. You find positive slope by counting how many units you go up, and then to the right from one point to find the next point. Which line has a slope of one up, one to the right? A, B, or C

A

B

C

Student Response



Item 3

Option:

Here is an equation with the variable x . (Point to student materials.) This says x plus 1 equals 4. What number plus 1 equals 4? 1, 2, or 3

A

B

C

Student Response

1

2

3

Item 4

Option:

Here is a 6 foot by 3 foot rectangle and the formula for area. Area equals the length times the width. (Point to student materials.) What is the total area of this rectangle? 9 square feet, 18 square feet, or 32 square feet

A

B

C

Student Response

9 ft²18 ft²32 ft²

Item 5

Option:

Here are three lines. (Point to student materials.) When slope is positive, the line goes up to the right. Which line has positive slope? A, B, or C

A

B

C

Student Response

A

B

C

Item 6

Option:

Here is a word problem, the subtraction problem \$10 minus \$6, and three amounts of money. (Point to student materials.) Nora had ten dollars. Her lunch cost six dollars. How much money does Nora have left? 16 dollars, 6 dollars, or 4 dollars

A

B

C

Student
Response

\$16.00

\$6.00

\$4.00

Item 7

Option:

Here is a clock and three times. (Point to student materials). The clock says that it is 8:55 PM. Jade must go to bed in 5 minutes. What time will it be in 5 minutes? 5:55 PM, 8:00 PM, or 9:00 PM

A

B

C

Student
Response

5:55 PM

8:00 PM

9:00 PM

Item 8

Option:

Here is an input/output table showing what happens to y when x equals 1, 2, 3, 4, and 5. (Point to table in student materials.) The relationship between x and y can be expressed as the function y equals 2 times x . (Point to function in student materials.) What is the value of y when x equals 4? 4, 8, or 10

A

B

C

Student
Response

4

8

10

Item 9

Option:

Here is a gumball machine with 26 gumballs in it. (Point to student materials.) If you put money in it you would probably get the kind of gumball that there is most of inside the machine. If the machine has 14 black gumballs and 12 white gumballs, what would you probably get? black, white, or the probability is the same for both colors

A

B

C

Student
Response

black

white

same

Item 10

Option:

Here is a number line with numbers from negative 10 to positive 10. (Point to student materials.) The number line shows points at negative 7 and 5. Which comparison is true? negative 7 is greater than 5, negative 7 is equal to 5, or negative 7 is less than 5

A

B

C

Student
Response $-7 > 5$ $-7 = 5$ $-7 < 5$

Item 11

Option:

Here are three scatter plots with data points labeled A, B, and C. (Point to student materials.) The line of best fit shows the general trend or path that data follow. Which scatter plot shows a line of best fit? A, B, or C

A	B	C	Student Response
A	B	C	

Item 12

Option:

Here is an expression that shows how much Andia gets paid for mowing the lawn. The expression is L times \$10. (Point to student materials.) L is the number of times Andia mows the lawn. If Andia mows the lawn 5 times, how much will she get paid? \$15, \$25, or \$50

A	B	C	Student Response
\$15	\$25	\$50	

Item 1

$$7x = 14$$

Seven times what number equals 14 ?

1

A

2

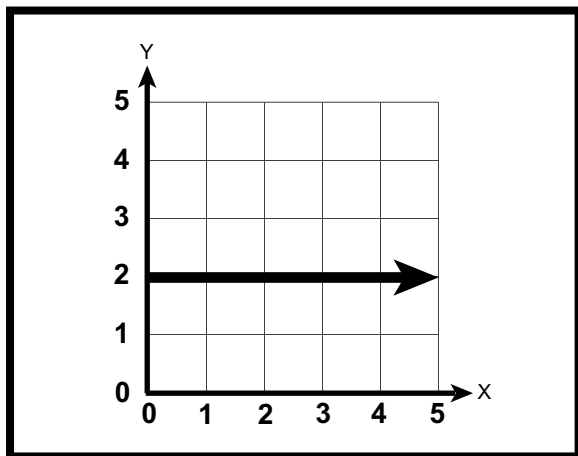
B

3

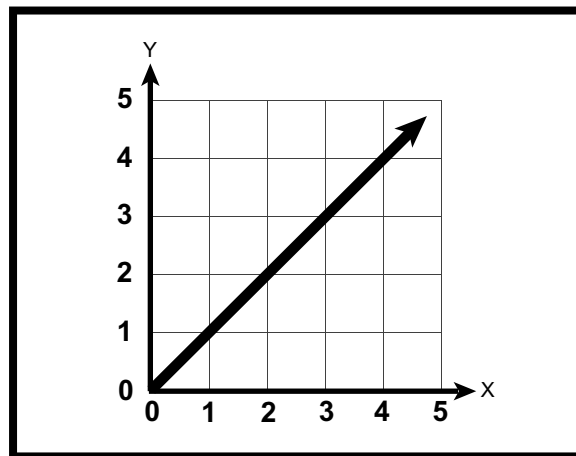
C

Item 2

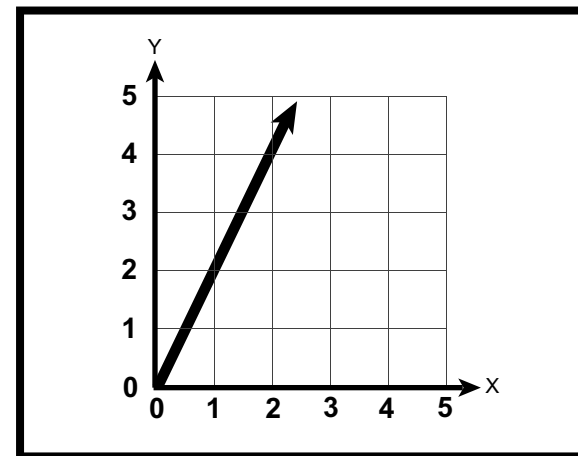
Which line has a slope of one up, one to the right?



A



B



C

Item 3

$$x + 1 = 4$$

What number plus 1 equals 4 ?

1

A

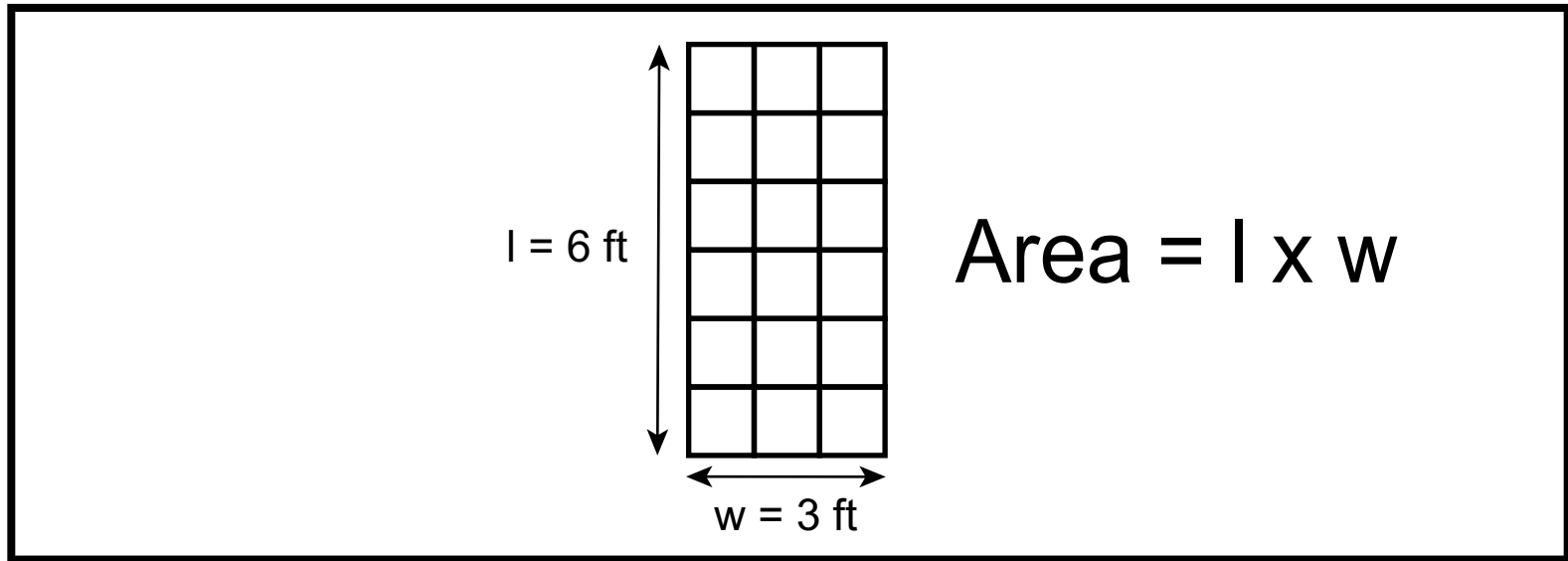
2

B

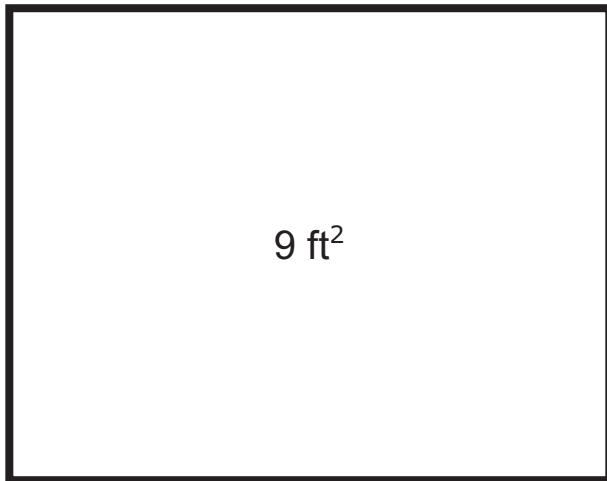
3

C

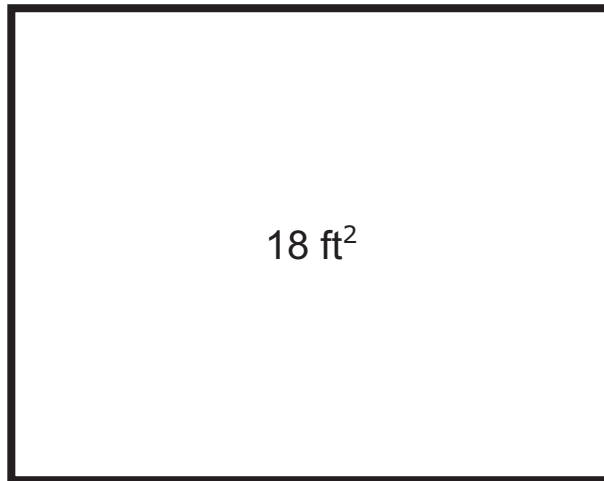
Item 4



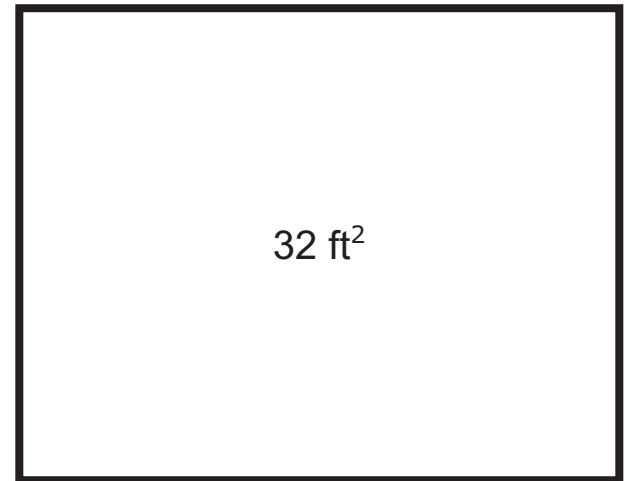
What is the total area of this rectangle?



A

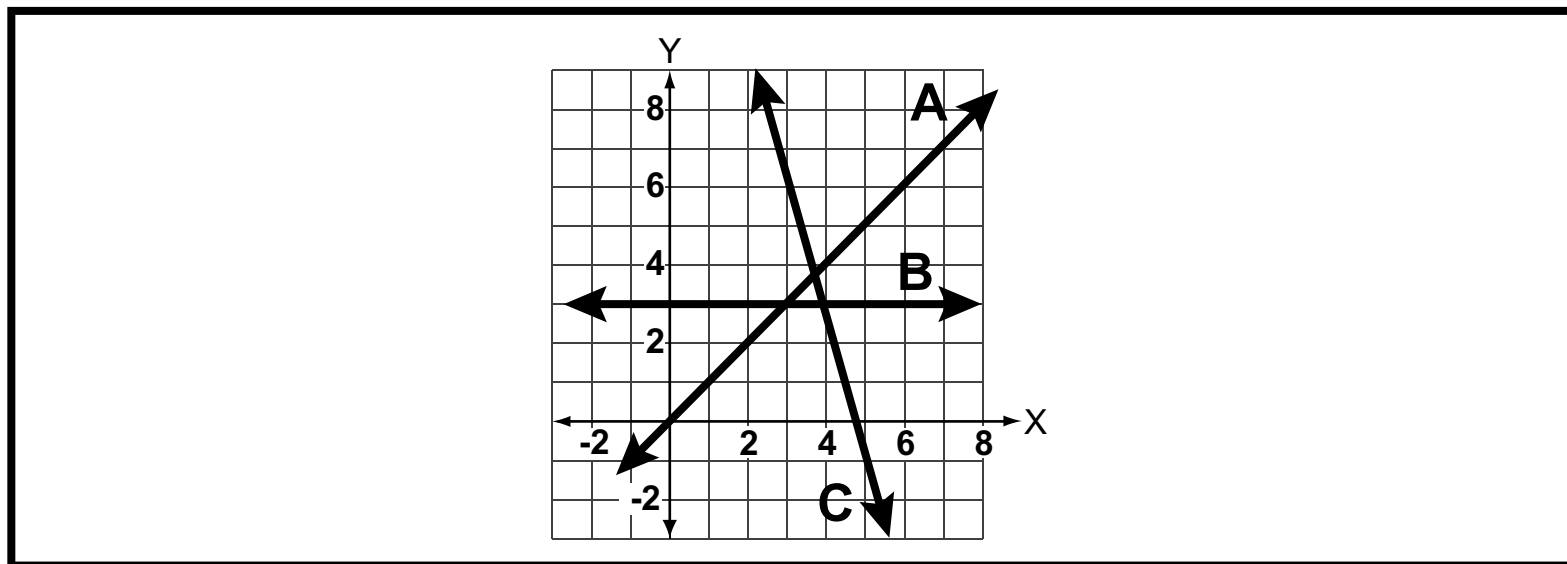


B



C

Item 5



Which line has positive slope?

A

B

C

A

B

C

Item 6

$$\$10.00 - \$6.00 = \$ \underline{\hspace{2cm}}$$

Nora had \$10.00. Her lunch cost \$6.00.

How much money does Nora have left?

\$16.00

A

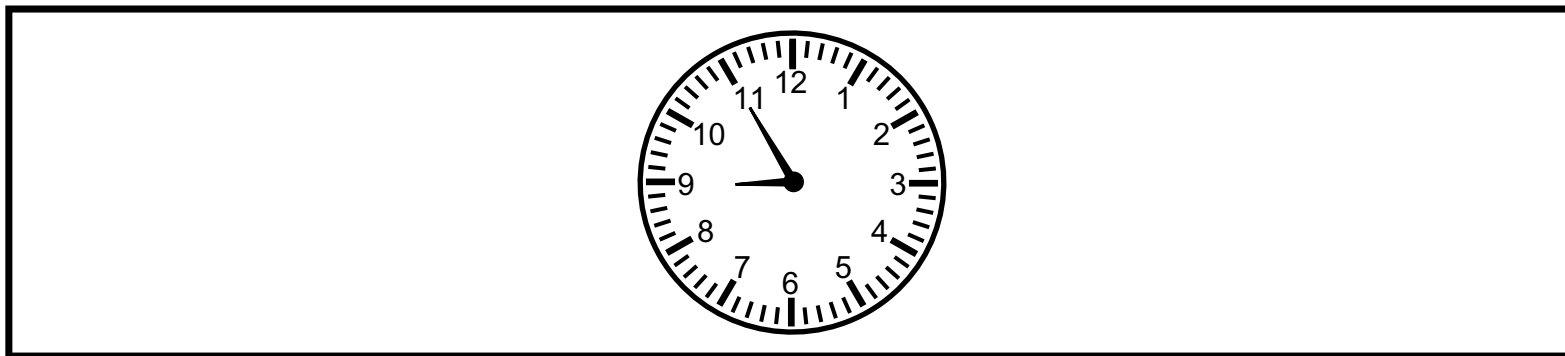
\$6.00

B

\$4.00

C

Item 7



The clock says that it is 8:55 PM. Jade must go to bed in 5 minutes.

What time will it be in 5 minutes?

5:55 PM

A

8:00 PM

B

9:00 PM

C

Item 8

x	y
1	2
2	4
3	6
4	?
5	10

$$y = 2x$$

What is the value of y when $x = 4$?

4

A

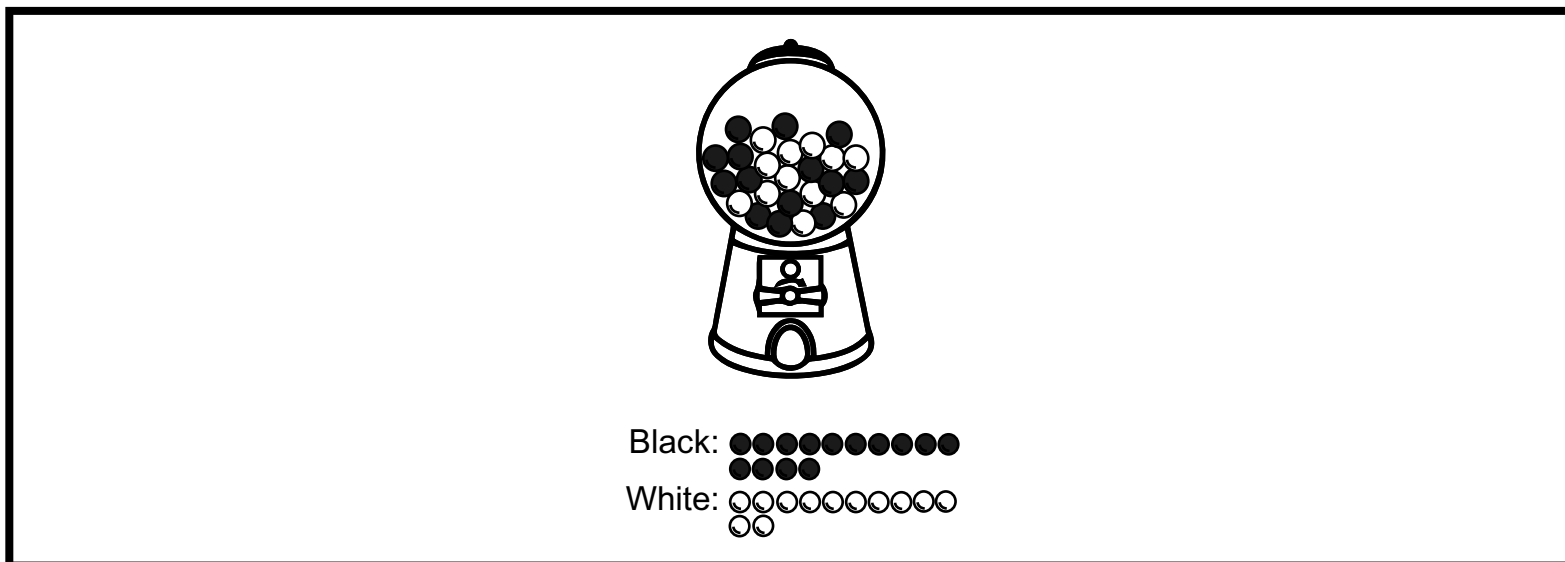
8

B

10

C

Item 9



If the machine has 14 black gumballs and 12 white gumballs, what would you probably get?

black

A

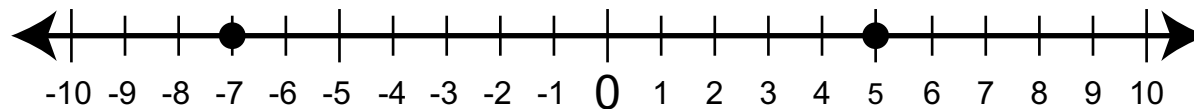
white

B

same

C

Item 10



-7 ____ 5

$-7 > 5$

A

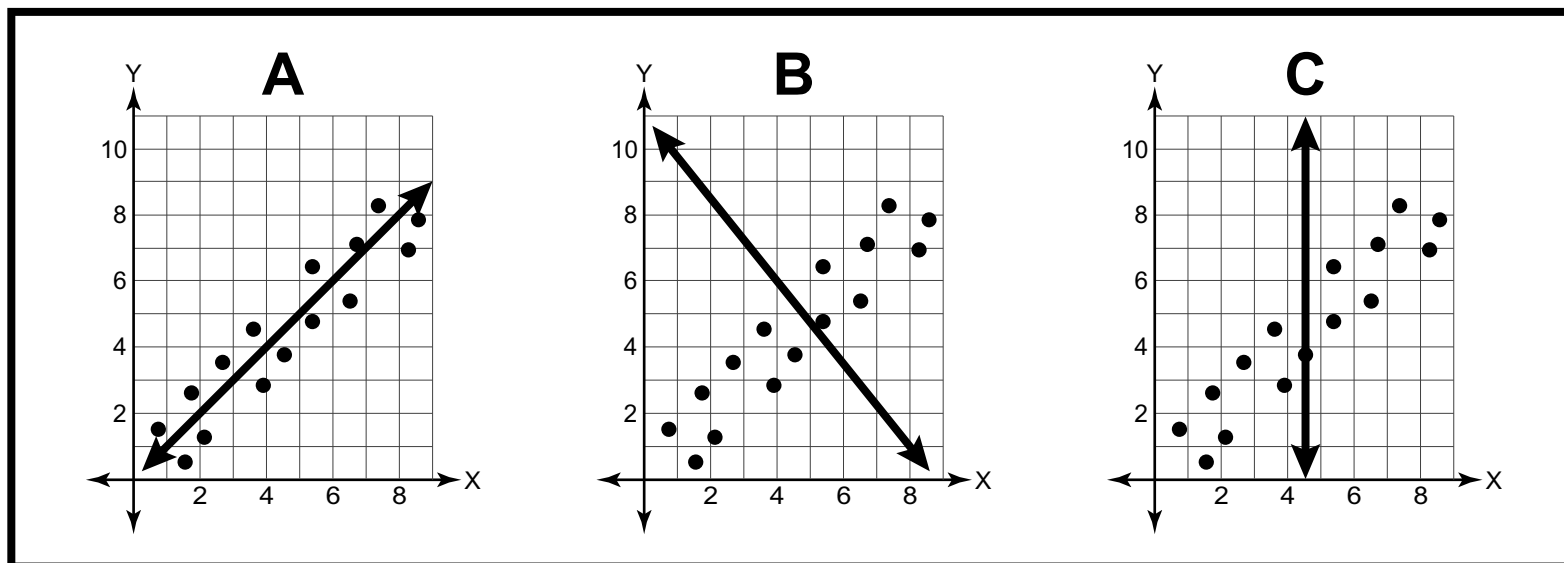
$-7 = 5$

B

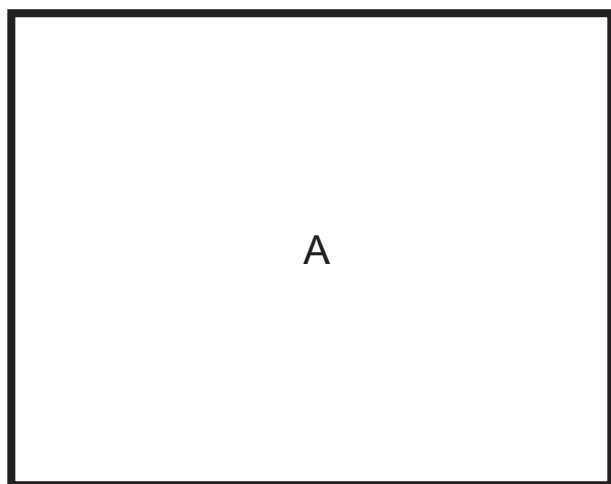
$-7 < 5$

C

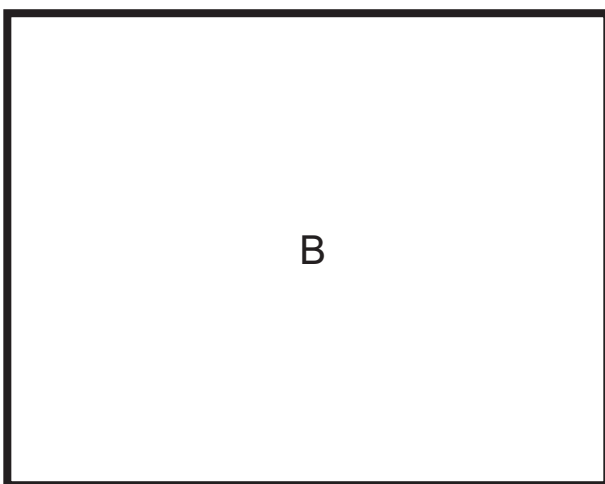
Item 11



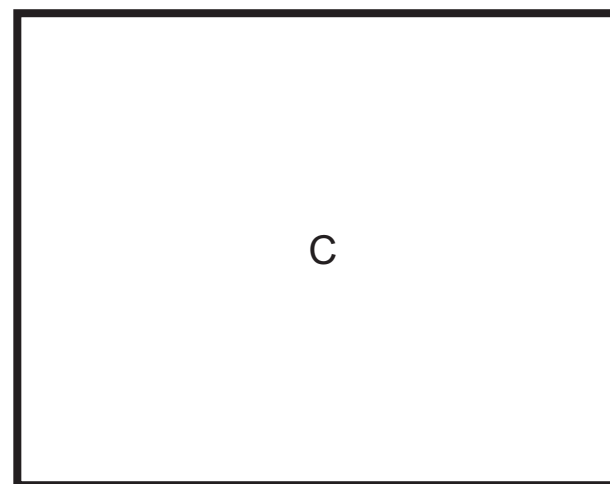
Which scatter plot shows a line of best fit?



A



B



C

Item 12

$$L \times \$10$$

L is the number of times Andia mows the lawn.

If Andia mows the lawn 5 times, how much will she get paid?

\$15.00

A

\$25.00

B

\$50.00

C

