Exit Ticket: Direct Variation

Does the equation represent a direct variation? If so, find the constant of variation.

1 $3x = -5y$

Ⓐ yes; $k = -\dfrac{5}{3}$

Ⓑ yes; $k = -\dfrac{3}{5}$

Ⓒ yes; $k = \dfrac{3}{5}$

Ⓓ no

2 $7x + 5y = 0$

Ⓐ yes; $k = \dfrac{7}{5}$

Ⓑ yes; $k = -\dfrac{7}{5}$

Ⓒ yes; $k = 5$

Ⓓ no

3 $3x^2 + 6y = 0$

Ⓐ yes; $k = \dfrac{1}{2}$

Ⓑ no

Ⓒ yes; $k = 2$

Ⓓ yes; $k = -\dfrac{1}{2}$

4 Suppose y varies directly with x, and $y = 20$ when $x = 2$. What direct variation equation relates x and y? What is the value of y when $x = -5$?

Ⓐ $y = -10x$; 50.00

Ⓑ $y = 10x$; –50.00

Ⓒ $y = 0.05x$; –0.25

Ⓓ $y = 0.1x$; –0.50

For the data in the table, does y vary directly with x? If it does, write an equation for the direct variation.

5

x	y
4	15
8	30
12	45

Ⓐ yes; $y = 3.75x$

Ⓑ yes; $y = 1.875x$

Ⓒ yes; $y = 7.5x$

Ⓓ no; y does not vary directly with x

6

x	y
11	5
22	20
33	45

Ⓐ yes; $y = 4.4x$

Ⓑ yes; $y = 2.2x$

Ⓒ yes; $y = 1.1x$

Ⓓ no; y does not vary directly with x

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Answer Section

1   B
2   B
3   B
4   B
5   A
6   D