

Lesson 5-5: Direct Variation

Part 1: Writing the Equation of a Direct Variation

1. Which equation represents the direct variation relationship of the equation $\frac{x}{y} = \frac{1}{2}$?

[A] $y = 3x$

[B] $x = 2y$

[C] $y = x + \frac{1}{2}$

[D] $y = 2x$

Part 2: Proportions and Equations of Direct Variations

2. Which table does *not* show an example of direct variation?

[A]

| x | y |
|-----|-----|
| 1 | 4 |
| 2 | 8 |
| 3 | 12 |
| 4 | 16 |

[B]

| x | y |
|-----|-----|
| 2 | 24 |
| 4 | 12 |
| 6 | 8 |
| 8 | 6 |

[C]

| x | y |
|-----|-----|
| -4 | -20 |
| -3 | -15 |
| -2 | -10 |
| -1 | -5 |

[D]

| x | y |
|-----|---------------|
| 1 | $\frac{1}{2}$ |
| 2 | 1 |
| 3 | $\frac{3}{2}$ |
| 4 | 2 |

3. Julio's wages vary directly as the number of hours that he works. If his wages for 5 hours are \$29.75, how much will he earn for 30 hours?

[1] D

[2] B

[2] \$178.50, and appropriate work is shown, such as solving a proportion, using a table, or trial and error with at least three trials and appropriate checks.

[1] Appropriate work is shown, but one computational error is made.

or [1] An appropriate proportion is set up, but no solution or an incorrect solution is found.

or [1] An incorrect proportion is set up, but an appropriate solution is found.

or [1] \$178.50, but no work is shown or fewer than three trials with appropriate checks are shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[3] incorrect procedure.