



Questions?
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Ask Question 

Determine if $2(y - 3) + 3(x + 2) = 0$ defines a direct proportion.

Question

$$2(y - 3) + 3(x + 2) = 0$$

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

$$2y + 3x - \cancel{6} + \cancel{6} = 0$$

$$2y + 3x = 0$$

$$2y + 3x - 3x = 0 - 3x$$

$$2y = -3x$$

$$\frac{2y}{2} = \frac{-3x}{2}$$

$$y = -\frac{3}{2}x$$

$$y = kx ; k = -\frac{3}{2}$$

Answer

4. Linear functions

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Determine if $4y + 4x + 4 = 0$ defines a direct proportion.

Question

Answer

$$4y + 4x + 4 = 0$$

$$4y + 4x + 4 - 4 = 0 - 4$$

$$4y + 4x = -4$$

$$4y + 4x - 4x = -4x - 4$$

$$4y = -4x - 4$$

$$\frac{4y}{4} = \frac{-4x}{4} - \frac{4}{4}$$

$$y = -x - 1$$

$$y = mx + b ; m = -1, b = -1$$

Not a direct proportion.

4. Linear functions

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Questions?
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Ask Question 

Determine if $(4, 5)$; $(7, 10)$ defines a direct proportion.

Question

$(4, 5)$ $(7, 10)$

$$\frac{5}{4} \neq \frac{10}{7}$$

$$5 \times 7 = 10 \times 4$$

$$35 = 40 \text{ (Not right)}$$

Not a direct proportion.

Answer

4. Linear functions

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Questions?
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Ask Question 

If y varies directly with x , and $y=3$ when $x=2$, determine y when $x=6$.

Question

$$(2, 3) \quad (6, Y)$$

$$\frac{3}{2} = \frac{Y}{6}$$

$$\frac{3 \times 6}{2} = Y$$

$$9 = Y$$

Answer

4. Linear functions

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If y varies directly with x , and $y=7$ when $x=2$, determine y when $x=8$.

Question

$$(2, 7) \quad (8, Y)$$

$$\frac{7}{2} = \frac{Y}{8}$$

$$\frac{7 \times 8}{2} = Y$$

$$28 = Y$$

Answer

4. Linear functions

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Questions?
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Ask Question 

If y varies directly with x , and $y=-1$ when $x=1$, determine y when $x=5$.

Question

$(1, -1)$ $(5, Y)$

$$\frac{-1}{1} = \frac{Y}{5}$$

$$\boxed{-5 = Y}$$

Answer

4. Linear functions

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