



Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

1 Two variables that are related so that the ratio of their values is **always the same** are said to be in **direct variation**.

True or false?

- A true
- B false

2 The formula for **direct variation** is  $y = kx$ , where  $k$  is the constant of variation.

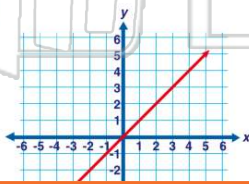
True or false?

- A true
- B false

3 The graph shown represents a **direct variation**.

True or false?

- A true
- B false



4 Which table shows that  $y$  varies **directly as  $x$** ?

- A 1
- B 2
- C 3
- D 4

1	<table border="1"><tr><th>x</th><th>y</th></tr><tr><td>4</td><td>8</td></tr><tr><td>6</td><td>9</td></tr><tr><td>8</td><td>10</td></tr></table>	x	y	4	8	6	9	8	10	2	<table border="1"><tr><th>x</th><th>y</th></tr><tr><td>3</td><td>5</td></tr><tr><td>4</td><td>4</td></tr><tr><td>5</td><td>3</td></tr></table>	x	y	3	5	4	4	5	3
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x	y																		
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2	4																		

5  
V  
d  
A  
E  
C  
D



## PREVIEW

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7  
If  
w  
A  
B 28  
C 32  
D 42

- A  $y = (\frac{27}{27})x$
- B  $y = 7x$
- C  $y = 9x$
- D  $y = (\frac{3}{4})x$

9 If  $y$  varies directly as  $x$  and  $y = 30$  when  $x = 18$ , what is equation of variation?

- A  $y = (\frac{5}{3})x$
- B  $y = (\frac{3}{5})x$
- C  $y = 5x$
- D  $y = 6x$

10 If  $y$  varies directly as  $x$  and  $y = 10$  when  $x = 2$ , what is the equation of variation and what is the **value of  $y$**  when  $x = 22$ ?

- A  $y = (\frac{1}{5})x, 4.4$
- B  $y = 10x, 220$
- C  $y = 5x, 110$
- D  $y = 2x, 44$



## ANSWER KEY

Two variables that are related so that the ratio of their values is **always the same** are said to be in **direct variation**.

True or false?

- A true
- B false

(a)

The formula for **direct variation** is  $y = kx$ , where  $k$  is the constant of variation.

True or false?

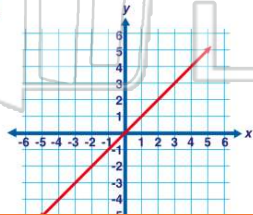
- A true
- B false

(b)

The graph shown represents a **direct variation**.

True or false?

- A true
- B false



(a)

Which table shows that  $y$  varies **directly as  $x$** ?

- A 1
- B 2
- C 3
- D 4

1	<table border="1"><thead><tr><th>x</th><th>y</th></tr></thead><tbody><tr><td>4</td><td>8</td></tr><tr><td>6</td><td>9</td></tr><tr><td>8</td><td>10</td></tr></tbody></table>	x	y	4	8	6	9	8	10
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7	28								
4	<table border="1"><thead><tr><th>x</th><th>y</th></tr></thead><tbody><tr><td>2</td><td>4</td></tr><tr><td>4</td><td>12</td></tr></tbody></table>	x	y	2	4	4	12		
x	y								
2	4								
4	12								

(c)



## PREVIEW

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If  $y$  varies directly as  $x$  and  $y = 30$  when  $x = 18$ , what is equation of variation?

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(a)

If  $y$  varies directly as  $x$  and  $y = 10$  when  $x = 2$ , what is the equation of variation and what is the **value of  $y$**  when  $x = 22$ ?

- A  $y = (\frac{1}{5})x, 4.4$
- B  $y = 10x, 220$
- C  $y = 5x, 110$
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(c)