

Variation - Day 1  
Assignment

Name \_\_\_\_\_  
Date \_\_\_\_\_ Period \_\_\_\_\_

For each table find the constant of variation and corresponding equation.

1.

|   |    |    |    |
|---|----|----|----|
| x | 3  | 4  | 5  |
| y | 18 | 24 | 30 |

k = \_\_\_\_\_

Equation \_\_\_\_\_

2.

|   |   |    |    |
|---|---|----|----|
| x | 1 | 4  | 7  |
| y | 4 | 16 | 28 |

k = \_\_\_\_\_

Equation \_\_\_\_\_

Tell whether each illustrates a direct variation. If yes, why?

3. A person's arm span, and his or her height.

3. \_\_\_\_\_

4. The number of eggs used in a particular recipe, and the number of cups of flour used.

4. \_\_\_\_\_

5. The number of people sharing an apartment, and the number of dollars rent each one must pay a month.

5. \_\_\_\_\_

Find the constant of variation (k) for each. Assume y varies directly with x.

6.  $y = 12$  when  $x = 24$

6. \_\_\_\_\_

7.  $y = 7$  when  $x = 49$

7. \_\_\_\_\_

8.  $y = -36$  when  $x = -4$

8. \_\_\_\_\_

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Solve. Assume  $y$  varies directly with  $x$ .

9. If  $y = 2$  when  $x = 6$ , find  $y$  when  $x = 24$ .

9. \_\_\_\_\_

10. If  $x = -12$  when  $y = -3$ , find  $x$  when  $y = -6$ .

10. \_\_\_\_\_

11. If  $y = 7$  when  $x = 2$ , find  $y$  when  $x = 8$ .

11. \_\_\_\_\_

12. If  $y = 6$  when  $x = -3$ , find  $x$  when  $y = 24$ .

12. \_\_\_\_\_

13. Gary's wages vary directly with the times he works. If his wages for 5 hours are \$60, what are his wages for 50 hours?

13. \_\_\_\_\_

14. Kate earned \$120 for 12 cars she washed. If the amount Kate earns varies directly with the number of cars she washed, how much will she earn for 5 cars?

14. \_\_\_\_\_