

NAME: _____

P.I. A2.A.5: Use direct and inverse variation to solve for unknown values

1. What is an inverse variation? Include an example.
2. Describe how a direct variation is different from an inverse variation.
3. Describe what the constant of variation means in a direct variation and an inverse variation.
4. Write five ordered pairs that are from the same inverse variation.
5. The area formula for a parallelogram with area 36 is $bh = 36$. Does the formula represent a direct or an inverse variation? Explain.

[1] In an inverse variation, the product of two quantities remains constant. For example, $xy = 40$ is an inverse variation.

[2] In a direct variation, y increases as x increases. In an inverse variation, the product of x and y is constant, so as y increases x decreases.

[3] Answers may vary. Sample: In a direct variation, values of independent variables are multiplied by the constant of variation to find the values of the dependent variable. In an inverse variation the product of the two variables equals the constant of variation.

[4] Answers may vary. Sample: $(1, 16)$, $(2, 8)$, $(4, 4)$, $(8, 2)$, $(16, 1)$

[5] It represents an inverse variation because the product of b and h is constant.
