

Grade 9 Mathematics Worksheet

Linear equations

Questions:

1. How are the following pairs of functions / graphs related?

a) $y = 2x + 3$ and $2y - 4x = 3$

b) $y = x^2$ and $y = x^2 + 2$

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Solution:

1. a) $2y - 4x = 3 \rightarrow 2y = 4x + 3 \rightarrow y = 2x + \frac{3}{2}$ and $y = 2x + 3$.

These two graphs are parallel since they have the same gradients.

b) $y = x^2$ and $y = x^2 + 2$ differ by two. The first graph is 2 units below the second graph.