Objective 1 - Construct a linear function from points

Use points to construct a linear function.

Link to section in online textbook.

First, watch this video to learn about what is necessary to construct a linear function.

This objective will focus on constructing linear functions from a point and slope or from two points.

Question 1 *Find the equation of the line containing the two points below. Write the equation in slope-intercept form.*
$(??, ??)$ *and* $(??, ??)$

$y = \boxed{??}x + \boxed{??}$

Hint: *To construct a linear function, we need its slope and a single point on the line. Can we figure out the slope from two points?*

Question 2 *Find the equation of the line containing the two points below. Write the equation in slope-intercept form.*
$(??, ??)$ *and* $(??, ??)$

$y = \boxed{??}x + \boxed{??}$

Question 3 *Find the equation of the line containing the two points below. Write the equation in slope-intercept form.*
$(??, ??)$ *and* $(??, ??)$

$y = \boxed{??}x + \boxed{??}$

For these problems, you'll be given a description of the line and a point. Think about what information you should get from the line, then use the point to construct a new linear function.

Learning outcomes: Recognize and construct linear functions as well as solve linear equations.

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Question 4 *Find the equation of the line described below. Write the equation of the line in slope-intercept form.*

Parallel to $??=??$ *and passing through the point* $(??,??)$.

$y=\boxed{??}x+\boxed{??}$

Hint: *If a line is parallel to another, what does that mean about its slope?*

Question 5 *Find the equation of the line described below. Write the equation of the line in slope-intercept form.*

Parallel to $??=??$ *and passing through the point* $(??,??)$.

$y=\boxed{??}x+\boxed{??}$

Question 6 *Find the equation of the line described below. Write the equation of the line in slope-intercept form.*

Perpendicular to $??=??$ *and passing through the point* $(??,??)$.

$y=\boxed{??}x+\boxed{??}$

Hint: *If a line is perpendicular to another, what does that mean about its slope?*

Question 7 *Find the equation of the line described below. Write the equation of the line in slope-intercept form.*

Perpendicular to $??=??$ *and passing through the point* $(??,??)$.

$y=\boxed{??}x+\boxed{??}$
