

## Parallel and Perpendicular Lines

Sheet 3

- 1) The slope of a line  $m$  is  $-1$  and is parallel to the line  $n$  that passes through the point  $(8, -5)$ . Find the equation of the line  $n$ .

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- 2) A line  $u$  passing through the point  $(-2, -2)$  is parallel to the line  $v$  that cuts the  $x$  and  $y$  axis at  $x = -5$  and  $y = -5$ .

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- 3) Find the equation of the line parallel to the line joining  $(-2, 3)$  and  $(4, 1)$  and perpendicular to the line  $y = -8x - 7$  and passes through the point  $(-1, 2)$ .

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- 4) Find the equation of the line passing through the point  $(-1, 2)$  and parallel to the line  $y = -8x - 7$  and passes through the point  $(-1, 2)$ .

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- 5) Find the equation of the line passing through the point  $(7, 6)$  and parallel to the line  $-2x + 2y - 6 = 0$ .

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**Parallel and Perpendicular Lines**

- 1) The slope of a line  $m$  is  $-1$  and is parallel to the line  $n$  that passes through the point  $(8, -5)$ . Find the equation of the line  $n$ .

$$\underline{x + y = 3}$$

- 2) A line  $u$  passing through the point  $(-2, -2)$  is parallel to the line  $v$  that cuts the  $x$  and  $y$  axis at  $x = -5$  and  $y = 3$ .

$$\underline{2x + y = -10}$$

- 3) Find the equation of the line  $w$  that is perpendicular to the line joining the points  $(-2, 3)$  and  $(4, 1)$ .

$$\underline{3x - y = 10}$$

- 4) Find the equation of the line  $x$  that is perpendicular to the line  $y = -8x - 7$  and passes through the point  $(-1, 5)$ .

$$\underline{x - 8y = -41}$$

- 5) Find the equation of the line passing through the point  $(7, 6)$  and parallel to the line  $-2x + 2y - 6 = 0$ .

$$\underline{x - y = 1}$$

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