

Name : \_\_\_\_\_

## Parallel and Perpendicular Lines

Sheet 4

- 1) A line  $m$  passes through  $(-2, -7)$  and  $(1, s)$ . Slope of a line  $n$  is  $-1$ . Line  $m$  is perpendicular to line  $n$ . Find the value of  $s$ .

$s =$  \_\_\_\_\_

- 2) A line passes through  $(t, -3)$  and  $(-3, -6)$ . Another line passes through  $(-5, -6)$  and  $(-2, -9)$ . The lines are parallel. Find the value of  $t$ .

$t =$  \_\_\_\_\_

- 3) A line  $u$  passes through  $(-2, 6)$  and  $(1, 9)$ . The lines  $u$  and  $v$  are parallel. Find the value of  $b$ .

$b =$  \_\_\_\_\_

- 4)  $\overleftrightarrow{AB}$  passes through  $(-2, 6)$  and  $(1, 9)$ .  $\overleftrightarrow{CD}$  passes through  $(9, 5)$ . If  $\overleftrightarrow{AB} \perp \overleftrightarrow{CD}$ , find the value of  $k$ .

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

- 5) A line passes through  $U(3, 9)$  and  $V(6, 6)$ . Another line passes through  $W(y, 6)$  and  $X(5, 8)$ . The lines are parallel. Find the value of  $y$ .

$y =$  \_\_\_\_\_

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**Parallel and Perpendicular Lines**

- 1) A line  $m$  passes through  $(-2, -7)$  and  $(1, s)$ . Slope of a line  $n$  is  $-1$ . Line  $m$  is perpendicular to line  $n$ . Find the value of  $s$ .

$$s = \underline{-4}$$

- 2) A line passes through  $(t, -3)$  and  $(-3, -6)$ . Another line passes through  $(-5, -6)$  and  $(-2, -9)$ . The lines are parallel. Find the value of  $t$ .

$$t = \underline{-6}$$

- 3) A line  $u$  passes through  $(-2, 6)$  and  $(1, 9)$ . The lines  $u$  and  $v$  are perpendicular. Find the value of  $b$ .

$$b = \underline{0}$$

- 4)  $\overleftrightarrow{AB}$  passes through  $(-3, 2)$  and  $(1, 5)$ .  $\overleftrightarrow{CD}$  passes through  $(9, 5)$ . If  $\overleftrightarrow{AB} \perp \overleftrightarrow{CD}$ , find the value of  $k$ .

$$k = \underline{-5}$$

- 5) A line passes through  $U(3, 9)$  and  $V(6, 6)$ . Another line passes through  $W(y, 6)$  and  $X(5, 8)$ . The lines are parallel. Find the value of  $y$ .

$$y = \underline{3}$$

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