Check Up

1. Arrange the equations of the following lines into groups representing parallel lines.

$y = 3x + 7$	$y - 1 = -(x + 2)$	$2x + 10y - 4 = 0$
$y - 2 = -\frac{1}{5}(x - 6)$	$x = -y + 4$	$y = 3x$
$y = 3x - 9$	$x + y = 0$	$y = -\frac{1}{5}x + 1$

Compare your answers.

1. Arrange the equations of the following lines into groups representing parallel lines.

Find the slope of each line to determine which ones are parallel.

$y = 3x + 7$ $m = 3$	$y - 1 = -(x + 2)$ $m = -1$	$2x + 10y - 4 = 0$ $2x + 10y - 4 = 0$ $2x + 10y - 4 - 2x + 4 = 0 - 2x + 4$ $10y = -2x + 4$ $\frac{10y}{10} = \frac{-2x}{10} + \frac{4}{10}$ $y = -\frac{1}{5}x + \frac{2}{5}$ $m = -\frac{1}{5}$
$y - 2 = -\frac{1}{5}(x - 6)$ $m = -\frac{1}{5}$	$x = -y + 4$ $x = -y + 4$ $x - 4 = -y + 4 - 4$ $\frac{x}{-1} - \frac{4}{-1} = \frac{-y}{-1}$ $-x + 4 = y$ $m = -1$	$y = 3x$ $m = 3$
$y = 3x - 9$ $m = 3$	$x + y = 0$ $x + y = 0$ $x + y - x = 0 - x$ $y = -x$ $m = -1$	$y = -\frac{1}{5}x + 1$ $m = -\frac{1}{5}$

The lines $y = 3x + 7$, $y = 3x$, and $y = 3x - 9$ are parallel.

The lines $y - 1 = -(x + 2)$, $x = -y + 4$, and $x + y = 0$ are parallel.

The lines $2x + 10y - 4 = 0$, $y - 2 = -\frac{1}{5}(x - 6)$, and $y = -\frac{1}{5}x + 1$ are parallel.