**Parallel and Perpendicular Lines**

Find the equation of the line that has:

**(a)** Gradient 2 and goes through (0, 5)

**(b)** Gradient -3 and goes through (0, 7)

**(c)** Gradient $\frac{2}{3}$ and goes through (0, 4)

**(d)** Gradient -4 and goes through (0, -1)

**(e)** Gradient 1 and goes through (0, -6)

Find the equation of the line that is:

**(a)** Parallel to the line $y=4x+7$ and passes through (0, 2)

**(b)** Parallel to the line $y=-2x+4$ and passes through (0, 6)

**(c)** Parallel to the line $y=3x+1$ and passes through (0, -4)

**(d)** Parallel to the line $y=x+6$ and passes through (0, 5)

**(e)** Parallel to the line $y=\frac{1}{2}x+3$ and passes through (0, -1)

Find the equation of the line that is:

**(a)** Perpendicular to the line $y=2x+5$ and passes through (0, 7)

**(b)** Perpendicular to the line $y=\frac{1}{3}x+4$ and passes through (0, -5)

**(c)** Perpendicular to the line $y=-5x+1$ and passes through (0, 2)

**(d)** Perpendicular to the line $y=-\frac{1}{4}x+5$ and passes through (0, -4)

**(e)** Perpendicular to the line $y=3x-1$ and passes through (0, 3)

Match the pairs of perpendicular lines.

$x=6$ $x+y=5$ $y=8x-9$

$2y=x+4$ $2x+y=9$ $y=-\frac{1}{8}x+6$

$5y=2x+15$ $y=0.1x+2$ $y=-2$

$y=33-10x$ $2y+5x=2$ $y=x+4$

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