**Equations of Perpendicular Lines**

Decide whether each of these pairs of lines is perpendicular, parallel or neither:

(a) $y=2x-1$ and $y=-\frac{1}{2}x+5$

(b) $y=\frac{1}{3}x+2$ and $y=\frac{1}{3}x-4$

(c) $y=1-4x$ and $y=-\frac{1}{4}x+\frac{3}{4}$

(d) $y=\frac{2}{3}x$ and $y=-\frac{3}{2}x-6$

(a) Write down the equation of the straight line that is perpendicular to the line $y=-3x+1$ and passes through $(0, 2)$

(b) Write down the equation of the straight line that is perpendicular to the line $y=\frac{1}{4}x-5$ and passes through $(0, 7)$

(c) Write down the equation of the straight line that is perpendicular to the line $y=-\frac{1}{2}x$ and passes through $(0, -4)$

(a) Write down the equation of the straight line that is perpendicular to the line $y=4-5x$ and passes through $(0, -8)$

(b) Write down the equation of the straight line that is perpendicular to the line $y+3x=9$ and passes through $(0, 0)$

(c) Write down the equation of the straight line that is perpendicular to the line $2y=-5x+6$ and passes through $(0, 4)$

Match the pairs of perpendicular lines:

$y=\frac{2}{3}x-1$ $y=\frac{1}{2}x+\frac{3}{2}$

$y-3x=2$ $2-3x=2y$

$3-2x=y$ $3y+x+2=0$

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