Find the value of r so that the line passing through (-4, 5) and (4, r) has a slope of $\frac{3}{4}$

$\frac{y-y}{x-x} = \frac{3}{4} \rightarrow \frac{6}{8}$

$\frac{r-5}{4--4} = \frac{6}{8}$ $r = 11$

Find the value of r so that the line passing through (10, -3) and (r, 5) has a slope of -4. $\rightarrow \frac{-4}{1}$

$\frac{5--3}{r-10} = \frac{8}{-2}$ $r = 8$

$\frac{-3-5}{10-r} = \frac{-8}{2}$ $r = 8$

$\frac{\Delta y}{\Delta x} = \frac{8}{-2}$ $\frac{4}{-8}$ $\frac{1}{2}$

Finding Slopes from Equations

How?

$y = 6x + 5$

$m = 6$

$2x + 3y = 10$

$-2x \quad -2x$

$3y = 10 - 2x$

$\frac{3y}{3} = \frac{10}{3} - \frac{2x}{3}$

$y = \frac{10}{3} - \frac{2}{3}x$

$3y = -2x + 10$

$m = -2/3$