

**12.** In each of the following cases:

1. indicate the relative position of lines  $l$  and  $l'$  and justify your answer.

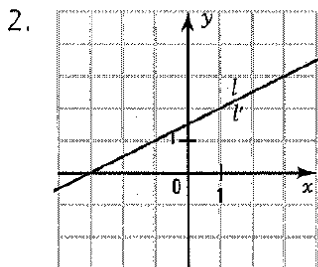
2. draw the lines  $l$  and  $l'$ .

a)  $l: 2x - 4y + 6 = 0$

$l': 3x - 6y + 9 = 0$

**They are coincident**

1.  $\frac{2}{3} = \frac{-4}{-6} = \frac{6}{9}$

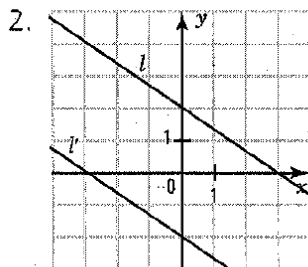


b)  $l: 2x + 3y - 6 = 0$

$l': 3x + 4.5y + 9 = 0$

**They are distinct parallel**

1.  $\frac{2}{3} = \frac{3}{4.5} \neq \frac{-6}{9}$



c)  $l: 2x + 3y - 3 = 0$

$l': 3x - 2y + 6 = 0$

**They are intersecting**

1.  $\frac{2}{3} \neq \frac{3}{-2}$

