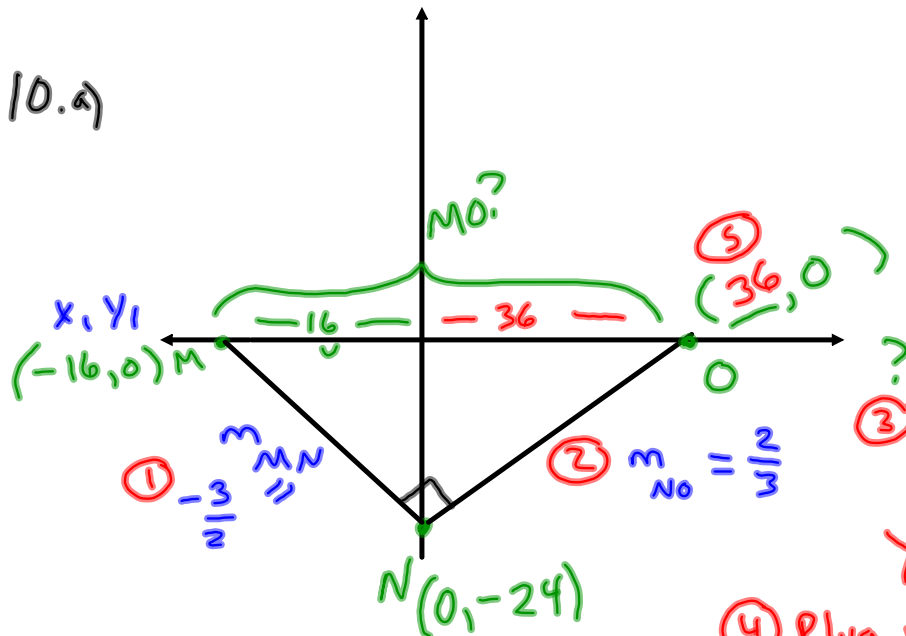


page 30 Rev Booklet

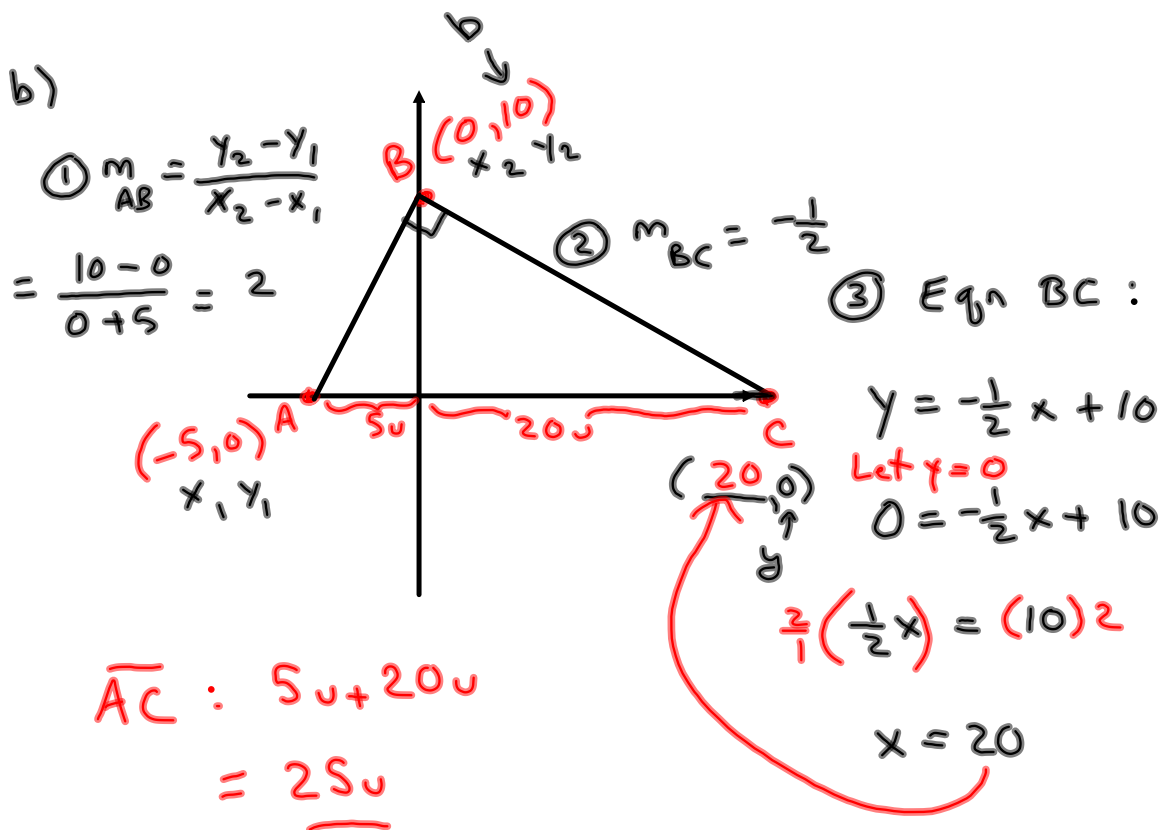
10.a)



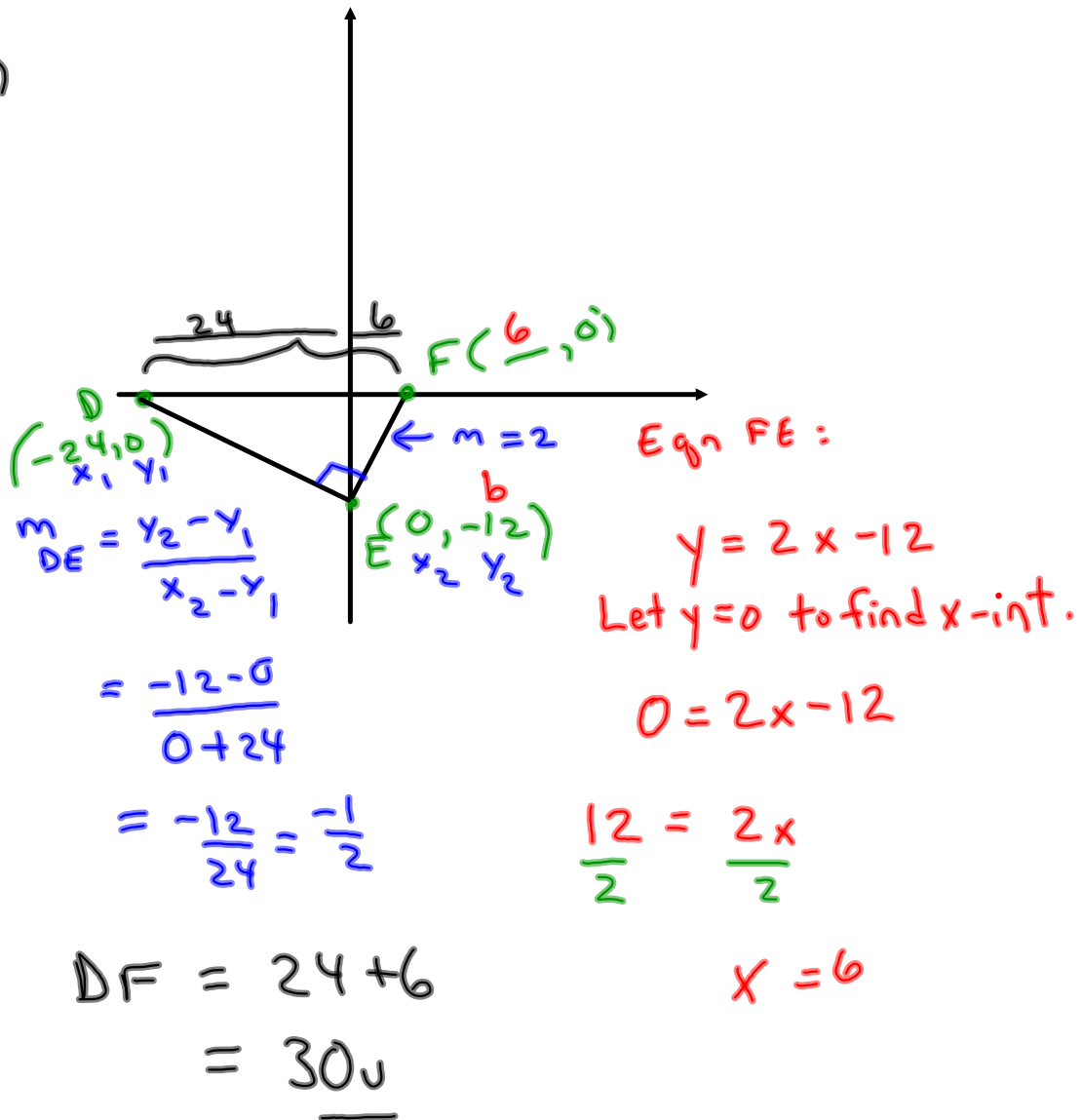
①  $m_{MN} = \frac{y_2 - y_1}{x_2 - x_1}$   
 $m = \frac{-24 - 0}{0 + 16} = \frac{-24 \div 8}{16 \div 8}$   
 $= \frac{-3}{2}$

⑥  $\overline{MO}$   
 $= 16u + 36u$   
 $= \textcircled{52u}$

③ Eqn NO =  
 $y = \frac{2}{3}x - 24$   
 ④ Plug in  $y=0$  to find x-int.  
 ⑤  $0 = \frac{2}{3}x - 24$   
 $(24) = \frac{3}{2} \left( \frac{2}{3}x \right)$   
 $36 = x$

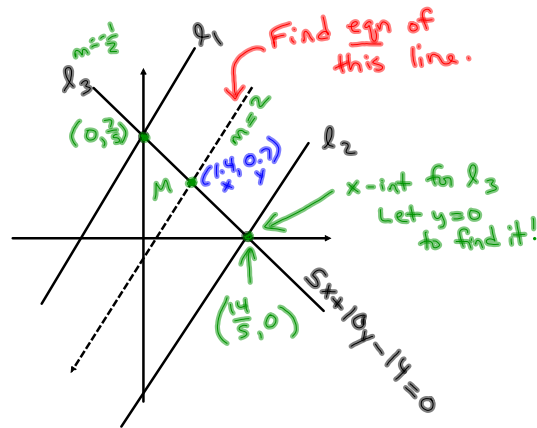


c)



Question 11 p. 34

a)



① Isolate  $y$  in  $l_3$  eqn.

$$5x + 10y - 14 = 0$$

$$\frac{10y}{10} = \frac{-5x + 14}{10}$$

$$y = -\frac{1}{2}x + \frac{7}{5} \leftarrow b$$

② Let  $y=0$  to find  $x$ -int for  $l_3$ .

$$0 = -\frac{1}{2}x + \frac{7}{5}$$

$$\frac{2}{1} \left( \frac{1}{2}x \right) = \left( \frac{7}{5} \right) \frac{2}{1}$$

$$x = \frac{14}{5} \text{ or } 2\frac{4}{5} \text{ or } 2.8$$

③ Find  $M$  (midpoint)  $(0, \frac{7}{5})$   $(\frac{14}{5}, 0)$

$$\left( \frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

$$\left( \frac{0 + \frac{14}{5}}{2}, \frac{\frac{7}{5} + 0}{2} \right)$$

$$\frac{2.8}{2} \leftarrow \frac{14}{5} \cdot \frac{1}{2} = \frac{14}{10} = \frac{7}{5} \text{ or } \frac{1.4}{2}$$

$$\frac{14}{5} \cdot \frac{1}{2} = \frac{14}{10} = \frac{7}{5}$$

$$\frac{7}{5} \cdot \frac{1}{2} = \frac{7}{10} = .7$$

$$(1.4, 0.7)$$

$$\text{or } \left( \frac{7}{5}, \frac{7}{10} \right)$$

④ Find Eqn of my Line:

$$m = 2 \quad (1.4, 0.7)$$

$$y = mx + b$$

$$0.7 = 2(1.4) + b$$

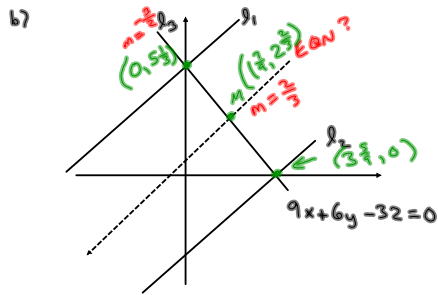
$$0.7 = 2.8 + b$$

$$0.7 - 2.8 = b$$

$$-2.1 = b$$

EQN

$$y = 2x - 2.1$$



① Isolate  $y$  in  $l_3$ :

$$9x + 6y - 32 = 0$$

$$6y = -9x + 32$$

$$y = -\frac{3}{2}x + \frac{32}{6}$$

$$y = -\frac{3}{2}x + 5\frac{1}{3}$$

② Let  $y=0$  to find  $x$ -int of  $l_3$ :

$$0 = -\frac{3}{2}x + 5\frac{1}{3}$$

$$\frac{3}{2}\left(\frac{2}{3}\right)x = \left(\frac{16}{3}\right)\frac{2}{3}$$

$$x = \frac{32}{9}$$

$$x = 3\frac{2}{9}$$

③ Find  $M$  of  $x$ -int +  $y$ -int  
 $(0, 5\frac{1}{3})$   $(3\frac{2}{9}, 0)$

$$M = \left( \frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

$$\left( \frac{0 + 3\frac{2}{9}}{2}, \frac{5\frac{1}{3} + 0}{2} \right)$$

$$\frac{32}{9} \cdot \frac{1}{2} \quad \frac{16}{3} \cdot \frac{1}{2}$$

$$\frac{32 \div 2}{18 \div 2} \quad \frac{16 \div 2}{6 \div 2}$$

$$\frac{16}{9} \quad \frac{8}{3}$$

$$\left( 1\frac{7}{9}, 2\frac{2}{3} \right) \quad x \quad y$$

④ Use  $m = \frac{2}{3}$  and  $M(1\frac{7}{9}, 2\frac{2}{3})$  to find eqn.

$$y = mx + b$$

$$2\frac{2}{3} = \left(\frac{2}{3}\right)\left(1\frac{7}{9}\right) + b$$

$$2\frac{2}{3} = 1\frac{5}{27} + b$$

$$2\frac{2}{3} - 1\frac{5}{27} = b$$

$$\text{or } 1\frac{13}{27} = b$$

$$\text{or } 1.48 = b$$

$$y = \frac{2}{3}x + 1\frac{13}{27}$$

↑  
OR  $\frac{40}{27}$   
OR 1.48