

8.1 | Slope | pg 400

21. $(3.4, 1.6)$ and $(5.4, 2.2)$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{2.2 - 1.6}{5.4 - 3.4} = \frac{0.6}{2} = 0.3$$

24. $(\frac{1}{2}, 4)$ and $(2, -6)$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-6 - 4}{2 - \frac{1}{2}} = \frac{-10}{\frac{4}{2} - \frac{1}{2}} = \frac{-10}{\frac{3}{2}} = -\frac{10}{1} \times \frac{2}{3} = \frac{-20}{3}$$

Extra: $(\frac{3}{2}, \frac{4}{5})$ and $(\frac{2}{7}, \frac{3}{4})$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{\frac{3}{4} - \frac{4}{5}}{\frac{2}{7} - \frac{3}{2}} = \frac{\frac{15}{20} - \frac{16}{20}}{\frac{4}{14} - \frac{21}{14}} = \frac{-\frac{1}{20}}{-\frac{17}{14}}$$

$$= \frac{-1}{\cancel{20}_{10}} \times \frac{\cancel{14}^7}{-17}$$

$$= \frac{7}{170}$$

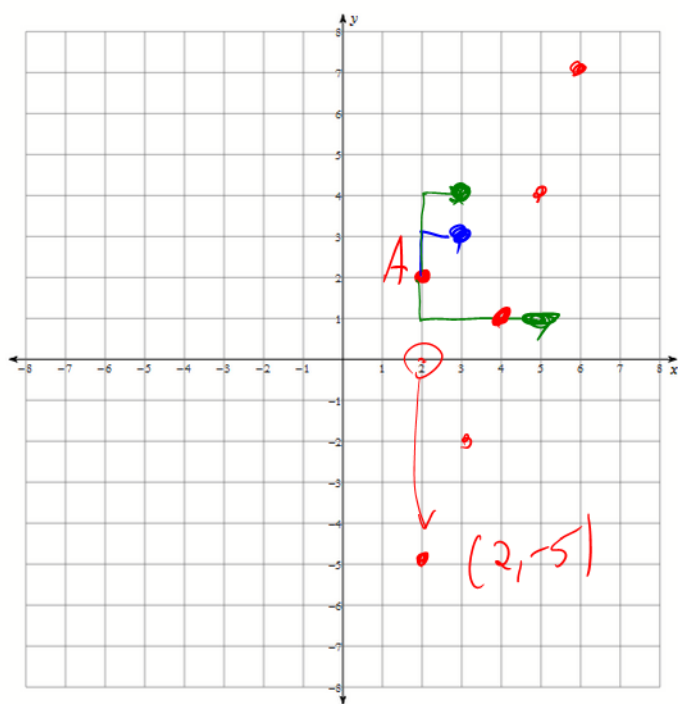
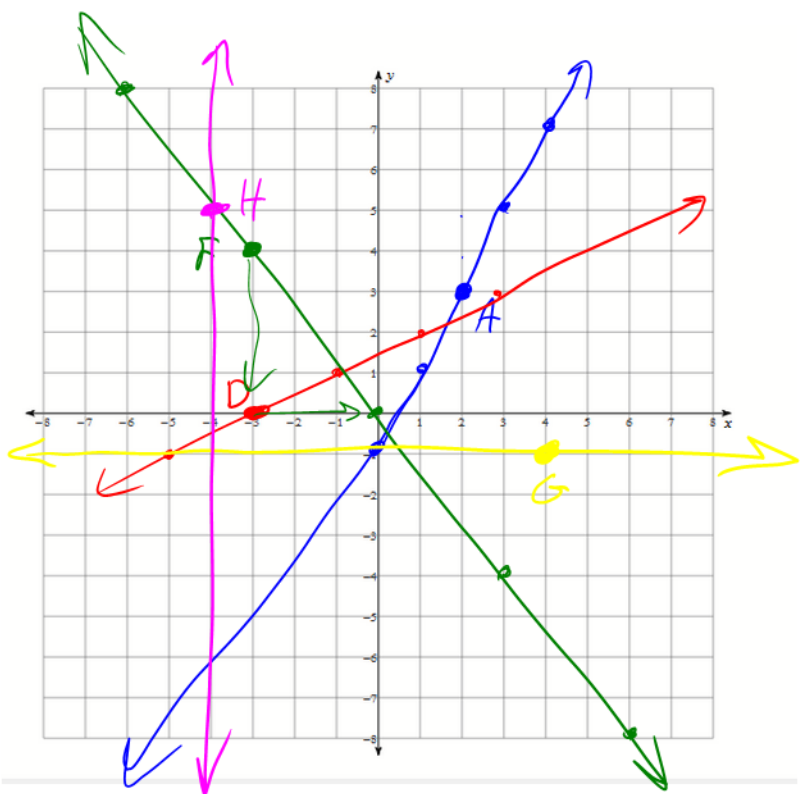
32. $A(2,3)$, $m = \frac{2}{1}$ ^{Rise} _{Run}

33. $D(-3,0)$ $m = \frac{1}{2}$ ^{Rise} _{Run}

35. $F(-3,4)$ $m = -\frac{4}{3}$ ^{Rise} _{Run}

36. $G(4,-1)$ $m = 0$

37. $H(-4,5)$ $m = \text{undefined}$



38. Given $A(2,2)$, find the coordinates of B so that the slope of AB is:

a) 1 ^{Rise} _{Run} $B(3,3)$

c) $m = 2$ $B(3,4)$

j) $m = -\frac{1}{3}$ ^{Rise} _{Run} $B(2+3, 2-1)$
 $B(5, 1)$

46. Slope is 3. Points are $(2,k)$ and $(4,1)$. What is k ?

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$3 = \frac{1 - k}{4 - 2}$$

$$2(3) = \frac{1 - k}{2}$$

$$6 = 1 - k$$

$$5 = -k$$

$$\therefore k = -5$$

Do on board:

Find slope of $A\left(\frac{3}{5}, -\frac{2}{3}\right)$ $B\left(\frac{2}{3}, \frac{4}{7}\right)$

$$m = \frac{\frac{4}{7} - \frac{-2}{3}}{\frac{2}{3} - \frac{3}{5}} = \frac{\frac{12}{21} + \frac{14}{21}}{\frac{10}{15} - \frac{9}{15}} = \frac{\frac{26}{21}}{\frac{1}{15}} = \frac{26}{\cancel{21}_7} \times \frac{\cancel{15}^5}{1} = \frac{130}{7}$$

Homework pg 400 22 - 48. only do #'s
assigned on your
yellow sheet.