4.3 Do Now Quiz: Graphing linear equations

1. (a) Graph and label the two equations. Mark their intersection as an ordered pair.

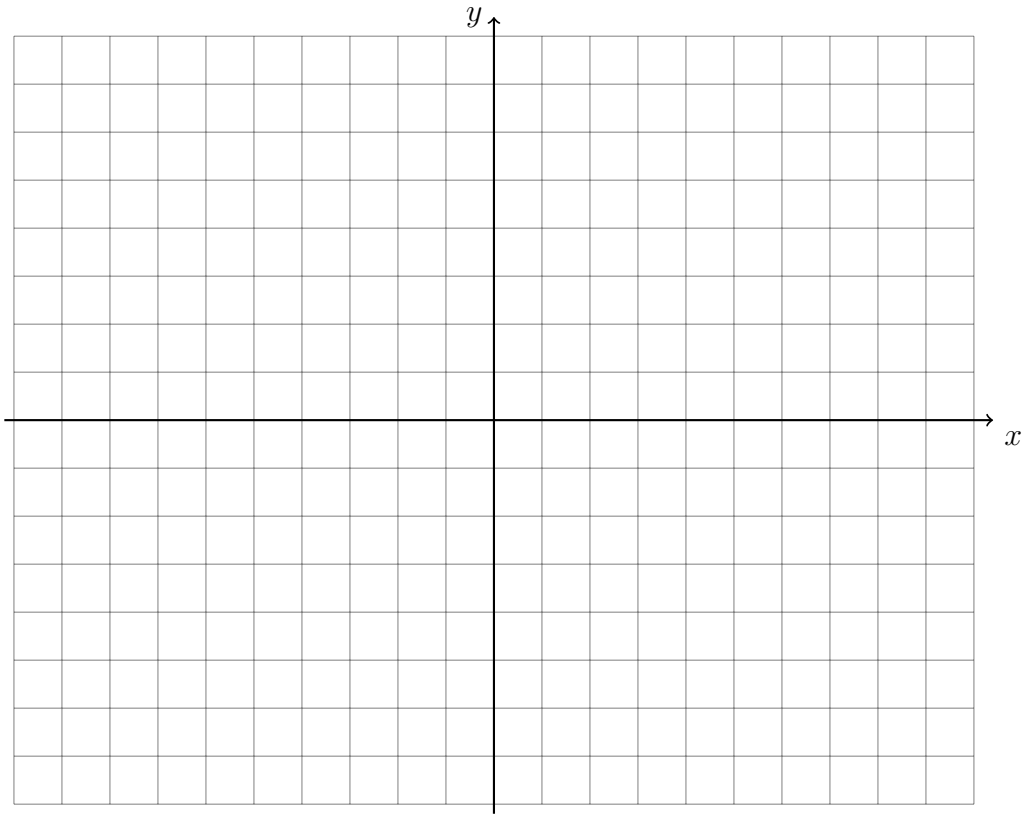
$y = -\frac{3}{4}x - 1$ $x - y = -6$ (4 pts)

(b) Find the slopes of the two lines. (2 points)

$m_1 =$ $m_2 =$

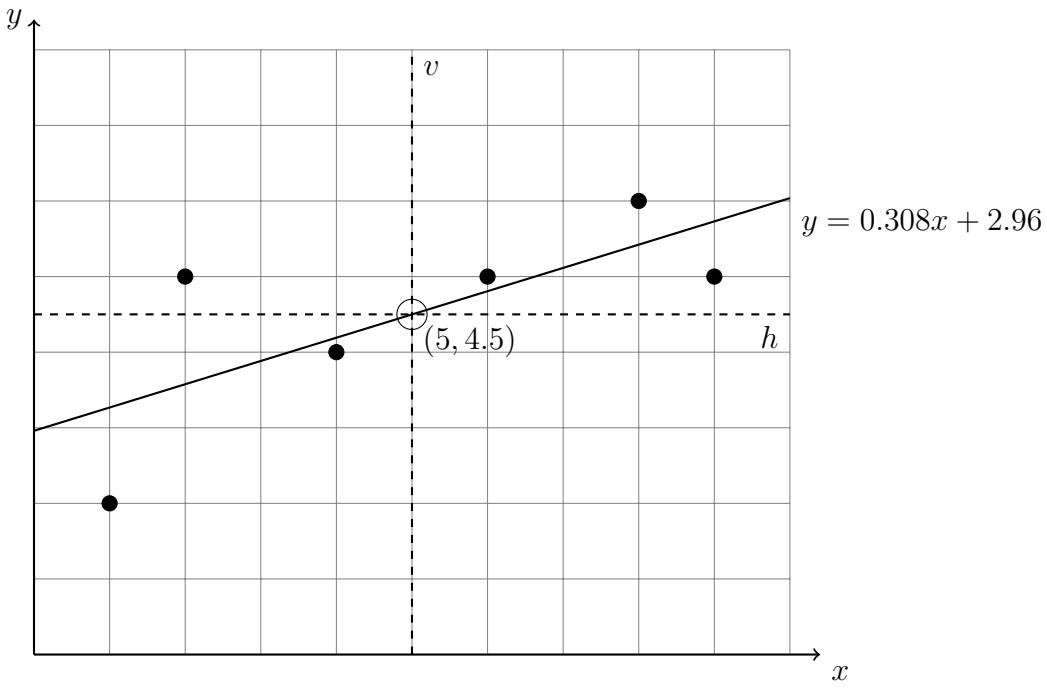
(c) Why is it incorrect to write $m_1 = -\frac{3}{4}x$? (1 point)

(d) Are the lines parallel, perpendicular, or neither? Justify your answer with an equation or inequality using the slopes. (2 points)



Early finishers: Linear equations, regression

2. (a) A set of six bivariate data are plotted and a linear regression is performed, as shown below. The correlation coefficient, r, has the value 0.853.



(b) The line of best fit has the equation $y = ax + b$. Write down the value of

i. a:

ii. b:

(c) Characterize the correlation coefficient, r.

(d) A horizontal line, h, and vertical line, v, intersect at the point $(5, 4.5)$. Write down the equation of each line.

i. h:

ii. v:

(e) Circle the representation corresponding to the point $(5, 4.5)$.

(σ, v) $(\overline{x}, \overline{y})$ (r, r^2) (a, b)