1. A = (5, 3)  B = (7, 5)  C = (-1, -2)
   (i) Find the distance AB  \( \sqrt{8} \)
   (ii) Find the distance BC  \( \sqrt{113} \)
   (iii) Find the midpoint AB  (6, 4)
   (iv) Find the midpoint AC  (2, 1/2)
   (v) Find the gradient AB  \( \frac{5 - 3}{7 - 5} = -1 \)

2. Find the equations of these lines:
   (a) parallel to \( y = -2x - 5 \) with y-intercept -3.
      \[ y = -2x - 3 \]
   (b) \[ \begin{array}{c|c|c|c}
          x & 1 & 2 & 3 \\
          y & 1 & 5 & 9 \\
        \end{array} \]
      \[ y = 4x - 3 \]
   (c) \[ y = -x + 3 \]
   (d) \[ y = -\frac{2}{3}x + 2 \]
   (e) \[ y = \frac{1}{3}x \]

4. Write down the equation of any straight line which is perpendicular to the line \( 3x - 2y + 1 = 0 \).
   \[ m_1 = \frac{3}{2} \quad \therefore \quad m_2 = -\frac{2}{3} \]
   \[ y = -\frac{2}{3}x + \frac{5}{3} \]

5. Find the gradient and y-intercept of the line \( 5x - 2y + 10 = 0 \).
   \[ y = \frac{5}{2}x + 5 \]
   \[ y = -\frac{5}{2}x + 5 \]

6. Find the equation of the line
   (a) through (3, 5) with gradient 2.
      \[ y = 2x - 1 \]
   (b) through (-4, 1) with gradient \( -\frac{2}{3} \).
      \[ y = -\frac{2}{3}x - \frac{7}{3} \]
   (c) parallel to \( 2x + 4y - 3 = 0 \) through (1, -2).
      \[ y = -\frac{1}{2}x + \frac{3}{2} \]
      \[ \therefore \quad y = -\frac{1}{2}x - \frac{3}{2} \]
   (d) perpendicular to \( 2x + 3y - 1 = 0 \) through (1, 2).
      \[ m_1 = -\frac{2}{3} \quad \therefore \quad m_2 = +\frac{3}{2} \]
      \[ y = \frac{3}{2}x + \frac{1}{2} \]
(e) through \((1, -2)\) and \((3, 4)\)

\[ m = \frac{4 - (-2)}{3 - 1} = \frac{6}{2} = 3 \]

\[ y = 3x - 5 \]

(f) through \((-4, 6)\) and \((1, 3)\)

\[ m = \frac{3 - 6}{1 - (-4)} = \frac{-3}{5} \]

\[ y = \frac{-3}{5}x + \frac{18}{5} \]

(g) through \((2, 5)\) and \((2, -5)\)

\[ x = 2 \]

7. Find the \(x\) and \(y\) intercepts of the line \(3x - 4y - 6 = 0\). Sketch the line.

\(x = 0, \ y = \frac{3}{2}\)
\(y = 0, \ x = 2\)

8. Sketch the following straight lines

(a) \(x = 3\)

(b) \(y = 2\)

(c) \(x - 2y = 0\).

End of paper