a)

The slope of any line parallel to the line through points (18, 14) and (10, 10)

When are line are parallel the slopes are equal.

Therefore, the slope of the line parallel to the line throught the given points will be equal.

Therefore, the slope of the line through the given points:

(18, 14) and (10, 10)

Slope of line $m = \dfrac{y_1 - y_2}{x_1 - x_2} = \dfrac{14 - 10}{18 - 10} = \dfrac{4}{8} = \dfrac{1}{2}$

Therefore the slope of the line is 1/2.

Therefore the slope of the line parallel to the line through the given points will also be 1/2.

b)

The slope of any line perpendicular to the line through points (11, 3) and (9, 7)

If the two line are perpendicular to each other then the product of their respective slopes should

$m_1 \times m_2 = -1$

Where: m_1 and m_2 are the slopes of the two lines perpendicular to each other.

Therefore, the slope of the line passing through the given two points:

(11, 3) and (9, 7)

Slope of line $(m_1) = \dfrac{y_1 - y_2}{x_1 - x_2} = \dfrac{3 - 7}{11 - 9} = \dfrac{-4}{2} = -2$

Let the slope of the line perpendicular to the line through the given points be m_2

Therefore,

$m_1 \times m_2 = -1$

$(-2) \times m_2 = -1$

$m_2 = 1/2$

Therefore,

The slope of the perpendicular line is 1/2.

d be -1