1 Determine which are ∥, ⊥ or neither.

1

$$A \qquad\qquad B$$
$$(y = 4x + 3) \quad (y = 5 - 4x)$$

Writing both equations in the form $y = mx + c$

$$A \qquad\qquad B$$
$$(y = 4x + 3) \quad (y = -4x + 5)$$

Given $m_A * m_B \neq -1$ and $m_A \neq m_B$ the lines are neither ⊥ or ∥.

2

$$A \qquad\qquad B$$
$$(3y = 12x + 3) \quad (y - 5 = 4x)$$

Writing both equations in the form $y = mx + c$

$$A \qquad\qquad B$$
$$(y = 4x + 1) \quad (y = 4x + 5)$$

Given $m_A = m_B$ the lines are ∥.

3

$$A \qquad\qquad B$$
$$(x + 3y = 0) \quad (2x + 6y - 4 = 0)$$

Writing both equations in the form $y = mx + c$

$$A \qquad\qquad B$$
$$(y = -0.3x + 0) \quad (y = -0.3x + 0.6)$$

Given $m_A = m_B$ the lines are ∥.

4

$$A \qquad B$$
$$(y = 3) \quad (x = \tfrac{1}{3})$$

It's impossible to determine whether the lines are ⊥, ∥ or neither.