



FIRST TERM GLOBAL TEST- 1° CCSS



Exercise 1: (1 pto) Work out:

$$\left. \begin{array}{l} 2x + y - z = 3 \\ 3x - 2y - 5z = 8 \\ x + y + z = 2 \end{array} \right\}$$

Exercise 2: (3.25 ptos) Work out:

$$\text{a) } \left. \begin{array}{l} x^2 - 6x + 8 < 0 \\ 9 - x^2 \geq 0 \end{array} \right\} \quad (0.75)$$

$$\text{b) } \left. \begin{array}{l} x \geq 7, y \geq 1 \\ 2x - y \geq 10 \\ x + y < 15 \end{array} \right\} \quad (1)$$

$$\text{c) } \left. \begin{array}{l} xy = 10 \\ 2x^2 - 3y^2 = 38 \end{array} \right\} \quad (1)$$

$$\text{d) } \frac{x+1}{x-2} \geq 0 \quad (0.5)$$

Exercise 3: (1.75 ptos) Work out:

$$\text{a) } \frac{x-3}{x+5} - \frac{x^2-1}{x^2+2x-15} + \frac{7}{x-3} =$$

$$\text{b) } \frac{x^4 - 3x^2 + 2x}{x^2 + x - 2} = x^2 + 5$$

Exercise 4: (2 ptos) Work out:

$$\text{a) } \log_7(2x-1) = 2 \log_7(x-3) - \log_7(3x+1)$$

$$\text{b) } \ln \frac{\sqrt[3]{2} \cdot \sqrt[5]{16}}{\sqrt{128}} =$$

Exercise 5: (2 ptos) Work out:

$$\text{a) } 3^{x+2} - 3^x - 3^{x-2} = 1917$$

$$\text{b) } 4^x + 160 = 37 \cdot 2^x$$

