

Callum Macon
2003599

ALHA 3000

Time: 3:20

03/11/20

Page 1

2) Solve the following linear equations for x

i) $15x - 2 = 12x + 9$

$$15x - 12x = 2 + 9$$

$$3x = 11$$

$$3x = 11$$

$$x = \frac{11}{3}$$

$$x = 3.6$$

ii) $3(7x - 1) = 6(x + 3)$

$$3 \times 7x = 21x, 3 \times -1 = -3$$

$$6 \times x = 6x, 6 \times 3 = 18$$

$$21x - 3 = 6x + 18$$

$$21x - 6x = 18 + 3$$

$$x = 15$$

iii) $\frac{5x+3}{4} = \frac{2x-1}{4}$

$$5x + 3 = 2x - 1$$

$$5x + 3 = 2x - 1, 3 - 1 = 2$$

$$3x = 2$$

$$5x + 3 \div 4 = 5.5, 3 - 1 \div 4 = 2.8$$

$$5.5x = 2.8$$

$$x = \frac{5.5}{2.8} \quad x = 1.964$$