Mathematics Homework
Block 4
Equations   Level 4

<u>SHOW ALL WORKING!</u>

1. Solve each of the following equations (show all steps).

   a) $4x + 6 = 20$

   b) $6x + 2 = 3x + 13$

   c) $6x - 2 = 40$

   d) $5x + 5 - 2x - 2 = 22$

   e) $\frac{3}{4}x - 1 = 3$

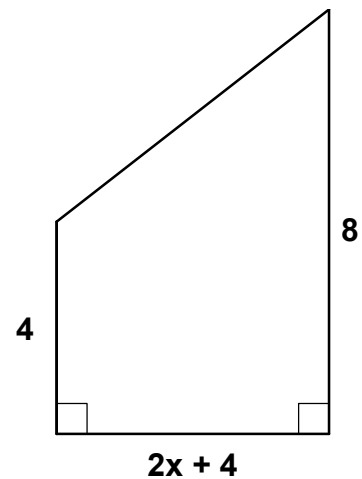2. Solve each of the following inequations for x.

   a) $5x - 2 \leq 18$

   b) $6x - 3 \leq 12$

   c) $5x + 14 < 8x - 1$

3. a) Write an expression for the area of this trapezium in terms of x.

   b) If the total area is 56m², form an equation in x, to represent this information.

   c) Solve your equation to find the value of x.

8

4

2x + 4

Mathematics Homework
Block 4
Equations   Level 4+

SHOW ALL WORKING!

1. Solve the following basic equations.

a) 9u + 4 = 19

b) 5r = 3r + 9

c) 3d + 5 = d + 13

d) 7y – 2 = 2y + 28

e) 7v – 5 = 6v – 4

f) 4 – 3h = 3h + 16

2. Solve the following equations by multiplying out the bracket first.

a) 2(x + 1) = 8

b) 4(k – 1) = 20

c) 2(3x + 1) = 2x + 22

d) 5y – 9 = 2(y – 15)

e) 4 – 5(2w + 7) = 2w + 5

f) 10 – (5t + 4) = 2t – 15

3. Solve these equations.

a) $\frac{2}{7}(2x + 5) = 1$

b) $2 - \frac{5}{8}(3 - 2x) = 0$

c) $\frac{2}{9}(1 + 2x) = \frac{5}{6}$

d) $\frac{5}{9}x - \frac{2}{3}(1 + x) = \frac{3}{2}$

e) $\frac{2(2x - 1)}{5} = \frac{3(1 - 2x)}{7}$

f) $\frac{5(5 - 2x)}{6} - \frac{8}{5} = \frac{7(1 - x)}{15}$