S3 Homework

1. Find the gradient and y – intercept of the following lines:
2. y = 3x + 4 b) y = -4x + 1 c) y = 5x – 2
3. y = $\frac{1}{3}$ x – 5 e) y = 3 + 2x f) y = 4x
4. Write the equation of a straight line which has a gradient of 3 and cuts the y – axis at (0, -5)
5. Write the equation of a straight line which has a gradient of -1 and cuts the y – axis at (0, 10)

x

 4 cm

36 cm

 12 cm

Find the length of x by first finding the scale factor.

20 cm

8 cm

These shapes are similar. The area of the smaller shape is 60 cm2. Find the area of the larger shape.

10 cm

5 cm

These boxes are mathematically similar. The large box can hold 3000 cm3. What is the volume of the smaller box?