28th July

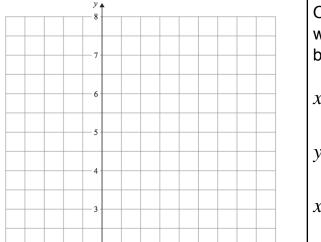
Higher 5-a-day



There are 3 red and 17 green counters in a bag.

Salma takes out a counter, replaces it and takes out another.

What is the probability of two reds?



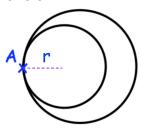
On the grid, clearly label the region which satisfies all three inequalities below

$$y \ge \frac{1}{2}x$$

$$x + 2y < 4$$

A is a point on two circles.

The smaller circle is inside the larger circle.



The difference between the area of the smaller circle and the larger circle is 20cm^2

The radius of the smaller circle is r cm The radius of the larger circle is 2cm greater than the radius of the smaller circle.

Show that the radius of the smaller 5

circle is
$$\frac{5}{\pi} - 1$$
 cm