

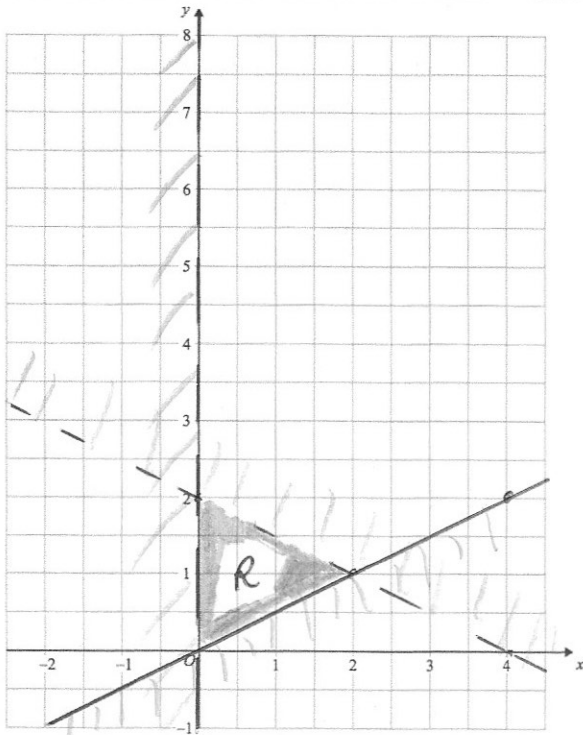


There are 3 red and 17 green counters in a bag.

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

What is the probability of two reds?

$$\frac{3}{20} \times \frac{3}{20} = \frac{9}{400}$$



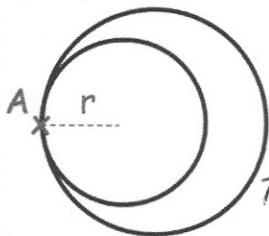
On the grid, clearly label the region which satisfies all three inequalities below

$$x > 0$$

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

$$x + 2y < 4$$

A is a point on two circles.
The smaller circle is inside the larger circle.



$$\pi(r+2)^2 - \pi r^2 = 20$$

$$\pi(r^2 + 4r + 4) - \pi r^2 = 20$$

$$\pi r^2 + 4\pi r + 4\pi - \pi r^2 = 20$$

The difference between the area of the smaller circle and the larger circle is 20cm²

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

$$4\pi r + 4\pi = 20$$

$$\pi r + \pi = 5$$

$$r + 1 = \frac{5}{\pi}$$

$$r = \frac{5}{\pi} - 1$$