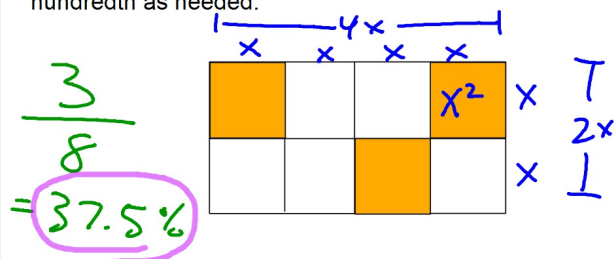


$$\text{Geometric Probability} = \frac{\text{Area of Favorable Region}}{\text{Total Area}}$$

Find the probability that if a dart lands in the rectangle that it lands in the shaded region. Give your answer as a percent. Round to the nearest hundredth as needed.

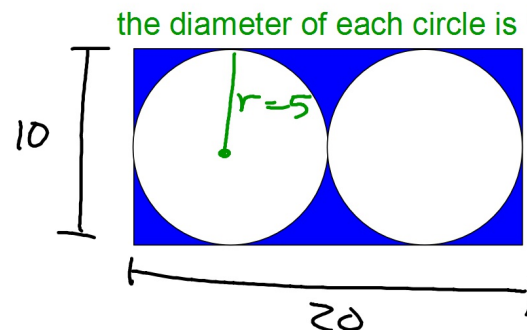


Since the smaller pieces are equal in size you can find the probability by counting.

$$\frac{3 \text{ SQ}}{\text{Rect}} = \frac{3x^2}{8x^2} = \frac{3}{8} = 37.5\%$$

You can also find the probability by calculating areas.

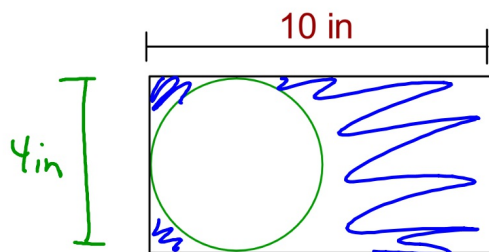
Find the probability that if a dart lands in the rectangle that it lands in the shaded region. Give your answer in terms of π and as a percent to the nearest tenth.



$$\frac{\text{Rect} - 2 \text{ circles}}{\text{Rect}} = \frac{200 - 50\pi}{200} = 21.5\%$$

The area of this rectangle is 40 in^2

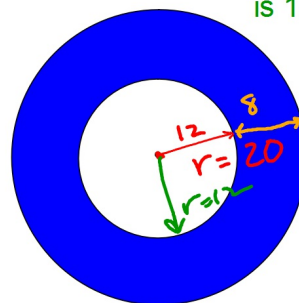
Find the probability that a dart randomly lands in the rectangle but not in the circle. Give the answer as a percent to the nearest tenth.



$$\begin{aligned} 40 &= b \cdot h \\ 40 &= 10h \\ 4 \text{ in} &= h \\ \frac{\text{Rect} - \text{circle}}{\text{Rect}} &= \frac{40 - \pi(2)^2}{40} = 68.6\% \end{aligned}$$

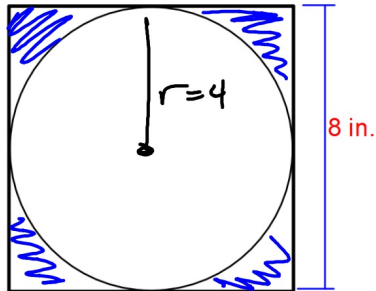
Find the probability that if a dart lands on the target that it lands in the shaded region. Give your answer in terms of π .

The radius of the smaller circle is 12 cm and the blue ring is 8 cm wide.



$$\begin{aligned} \frac{\text{Big circle} - \text{Small circle}}{\text{Big circle}} &= \frac{400\pi - 144\pi}{400\pi} = 256\pi / 400\pi \end{aligned}$$

The circle is inscribed in the square. A dart lands in a random spot within the square. Find the probability that the dart doesn't land in the circle. Give answer as a percent to the nearest tenth.



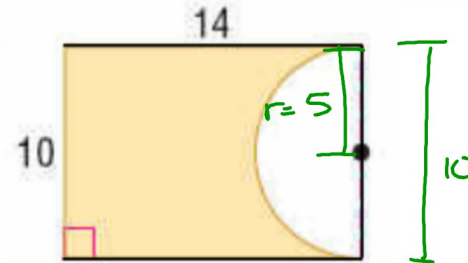
$$\frac{SQ - \text{circle}}{SQ}$$

$$\frac{64 - \pi(4)^2}{64}$$

$$= 21.5\%$$

Find the probability that a dart lands in the shaded region.

Give answer as a percent rounded to a hundredth.



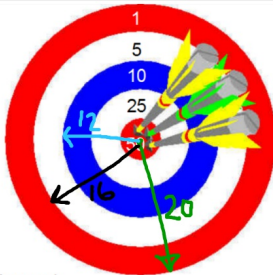
$$\frac{\text{Rect} - \text{Semi circle}}{\text{Rect}}$$

$$= \frac{140 - \frac{1}{2}\pi(5)^2}{140}$$

$$= 71.95\%$$

The radius of the bulls-eye is 4cm and the width of each ring is also 4cm.

Find each probability as a percent to the nearest tenth.



Area of the board
 $\pi(20)^2 = 400\pi$

1. P(dart lands in the bulls-eye)

$$= \frac{\pi(4)^2}{400\pi} = 4\%$$

2. P(dart lands in the 5 point ring)

$$= \frac{\pi 16^2 - \pi 12^2}{400\pi} = 28\%$$

3. P(dart scores at least 5 points)

$$= \frac{\pi 16^2}{400\pi} = 64\%$$

You can now finish Hwk #14

Sec 1-6

Due Thursday

page 43

problems 11-14, 19, 24-27, 34, 36, 40