

Answers

1. No

2. 60% \triangle $\frac{3}{5}$ 0.6 $0.4\bar{4}$ \triangle $\frac{4}{9}$ $44.\bar{4}\%$ $1\frac{7}{100}$ \triangle 1.07 107%

3. a) 770 b) 0.471

4. a) $\frac{4}{1}$ b) 205. 208 cm^2

5-34. RANDOM NUMBER GENERATOR

Imagine a random number generator that produces numbers from 1 to 20. In each game below, if the stated outcome happens, Player X wins. If it does not, then Player Y wins.

Game 1: A prime number = Player X wins

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Game 2: An even number = Player X wins

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Game 3: A number not divisible by three = Player X wins

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

- a. In each case, what is the theoretical probability that Player X wins? ~~That~~
~~Player Y wins?~~ Decide whether each game above is fair.

Game 1: $\frac{8}{20}$ Not fair

Game 2: $\frac{10}{20}$ Fair game

Game 3: $\frac{14}{20}$ Not fair

- b. In which of the three games is Player X most likely to win? Why?

Game 3