

Describe the likelihood of an event as impossible, unlikely, equally likely, likely or certain.

- The school chess club wins  $\frac{7}{8}$  of the time. \_\_\_\_\_
- It snows on  $\frac{9}{10}$  of the days in July. \_\_\_\_\_
- There is a 0% chance that your feet will shrink overnight \_\_\_\_\_
- The probability that the sun sets tomorrow is 1. \_\_\_\_\_

Find each theoretical probability as a FRACTION in SIMPLEST FORM, if you roll a standard number cube.

- $P(\text{not } 1) =$  \_\_\_\_\_
- $P(2 \text{ or } 5) =$  \_\_\_\_\_
- $P(1, 2 \text{ or } 5) =$  \_\_\_\_\_



- $P(\text{not a } 1 \text{ or not } 2) =$  \_\_\_\_\_
- $P(\text{odd number}) =$  \_\_\_\_\_
- $P(< 5) =$  \_\_\_\_\_

Suppose a number cube is rolled 240 times. About how many times should each event occur?

- You roll a 2 or 3.
- You roll an odd number.

Find the **experimental probability** of each event based off of counting a bag of M&Ms

colors	red	blue	green	brown	yellow
# of M&Ms	26	28	11	22	23

- $P(\text{brown}) =$  \_\_\_\_\_
- $P(\text{Not green}) =$  \_\_\_\_\_
- $P(\text{brown or green}) =$  \_\_\_\_\_

A bag of marbles contains: 5 green, 2 blue, 2 yellow, 1 purple and 10 red. Write each answer as a DECIMAL.

- $P(\text{blue}) =$  \_\_\_\_\_
- $P(\text{not red}) =$  \_\_\_\_\_
- $P(\text{green}) =$  \_\_\_\_\_

13. $P(\text{brown}) = \frac{1}{5}$	14. $P(\text{not green}) = \frac{9}{10}$	15. $P(\text{brown or green}) = \frac{10}{3}$	16. $P(\text{blue}) = 0.1$	17. $P(\text{not red}) = 0.5$	18. $P(\text{green}) = 0.25$
7. $P(1, 2, 5) = \frac{2}{3}$	8. $P(\text{not } 1 \text{ or not } 2) = \frac{5}{6}$	9. $P(\text{odd}) = \frac{2}{3}$	10. $P(< 5) = \frac{5}{6}$	11. about 80 times	12. about 120 times
1. likely	2. likely	3. impossible	4. certain	5. $P(\text{not } 1) = \frac{6}{5}$	6. $P(2 \text{ or } 5) = \frac{1}{3}$