

Algebra 1 0.11 Simple Probability and Odds

Find the probability of simple events

Find the odds of simple events

P-36
2-22e

probability

sample space

tree diagram

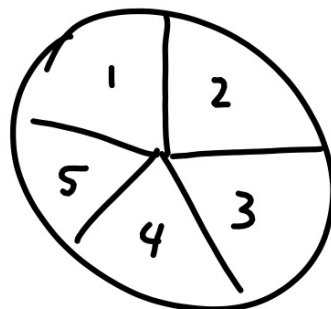
Fundamental Counting Principle

odds

number cubes (dice)

complementary events

$$3 \cdot 2 \cdot 2 = 12$$



F C P

$$P_e = \frac{2}{5} \quad \text{Odds}_e 2:3$$

Ex. 4

An ice cream shop offers one, two, or three scoops of ice cream from among 12 different flavors.

The ice cream can be served in a wafer cone, a sugar cone, or a dish. How many choices are possible?

$$3 \cdot 12 \cdot 3 = 108$$

Jimmy is creating a 3-digit password for his login on the school website. The password can include any digit from 0-9 but the digits may not repeat. How many possible 3-digit passwords are there?

$$P_2 \quad \frac{1}{6} \quad 1:5$$

The odds of an event occurring is the ratio that compares the number of ways an event can occur (success) to the number of ways it cannot occur (failure).

Ex. 5

A number cube is rolled.

Find the odds of rolling a number less than 3.

① ② 3 4 5 6

$$\frac{2}{2} : \frac{4}{2} \rightarrow 1:2$$

