

Simple Probability

A card is drawn randomly from a standard deck of playing cards.
What is the probability that the card drawn is a spade or a heart?

26 favourable outcomes

13 spades, 13 hearts, 13 clubs, 13 diamonds

$$P(E) = \frac{n(E)}{n(S)}$$
$$\therefore P(\text{spade or a heart}) = \frac{26}{52}$$

← 26 favourable outcomes
← 52 total outcomes

$$P(\text{spade or a heart}) = \frac{1}{2}$$

$P(\text{Event}) = \frac{\text{Number of favourable outcomes } n(E)}{\text{Number of total possible outcomes } n(S)}$

Back

Description

In this activity students answer various simple probability questions.

Teaching Hints

Use the visualisation to show the various scenarios that probability questions could be based on. Students could act out scenarios to do with playing cards and dice.

Activities

A class has 19 students.

If the probability of randomly selecting a boy from the class is $\frac{9}{19}$, how many boys are in the class?

No. of boys = 9 ✓

Easier Example

A bag contains 3 red marbles and 2 blue marbles.

One marble is selected at random. What is the probability of selecting a red marble?

$$P(\text{red marble}) = \frac{3}{5} \checkmark$$

Medium Example

A card is drawn randomly from a standard deck of playing cards.

What is the probability that the card drawn is a club or a heart?

$$P(\text{club or a heart}) = \frac{26}{52} \checkmark$$

Harder Example