

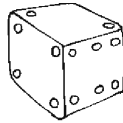
Grade 7 Maths Worksheet

Probability

Questions:

1. Your teacher gives the instruction :

Toss a fair coin and then roll a fair die.



- a) What does she mean by the term “fair”?
- b) List two events for this experiment.
- c) In a lattice diagram, list all the possible outcomes for the experiment.
- d) What will be the possibility that you land on heads first, and then land on an even number with the die?
- e) What is the possibility of landing on heads and then throwing a six?

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Solution

1. a) A fair coin / die is one that has an equal chance of landing on any one of the sides. So we say the outcomes are equally likely.
- b) 1) Tossing the coin and then 2) rolling the die.

c)

		Coin	
		H	T
Die	1	1H	1T
	2	2H	2T
	3	3H	3T
	4	4H	4T
	5	5H	5T
	6	6H	6T

- d) The sample space consists of $2 \times 6 = 12$ outcomes of which 6 lands on heads first, and then of these 6 possibilities, 3 outcomes are on an even number. So the total number of favourable outcomes will be 3, and the total possible outcomes will be 12.
 So: $P(\text{H then even}) = \frac{3}{12} = \frac{1}{4}$.
- e) The outcome will be 6H, and there is only one such an element in our sample space of 12 outcomes. So $P(\text{H then 6}) = \frac{1}{12}$.

It is important that learners know the language of statistics. Using terms like events, outcomes etc. are important to develop and understand the statistical discourse.

Appendix of Assignment Tools

Lattice diagram

Chance