

# Busy at Maths 5 - Fifth Class

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## Chance – Rolling dice

It is possible to work out the probability of any outcome when all the outcomes of the event are equally likely.

There are six possible outcomes when you roll a regular die: 1, 2, 3, 4, 5 or 6.

There is only one 5, therefore the chance of rolling a 5 is 1:6 or  $\frac{1}{6}$ .

There are three even numbers so the chance of rolling an even number is 3:6 or  $\frac{3}{6}$  or 50%.

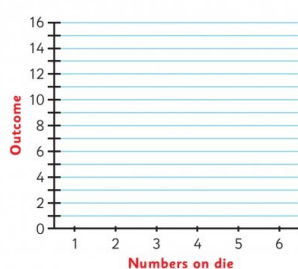


1. What is the probability of rolling:

- (a) an odd number? \_\_\_\_\_ (b) a number less than 4? \_\_\_\_\_ (c) the number 8? \_\_\_\_\_  
(d) a multiple of 2? \_\_\_\_\_ (e) a square number? \_\_\_\_\_ (f) a triangular number? \_\_\_\_\_

2. Roll a 6-sided die 36 times. Use tally marks to record the outcomes. Show your results on a vertical bar-line graph. First predict what you think the outcome will be.

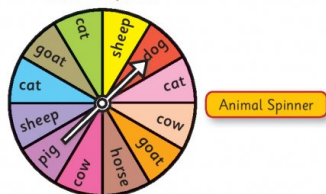
	Frequency table		
	Prediction	Tally	Outcome



Did your predictions come close to the tally? \_\_\_\_\_

3. In this experiment, you have only one spin of the **Animal Spinner**. What is the chance of stopping on the following?

- (a) a dog: ☐ in ☐ or  $\frac{1}{12}$   
(b) a cat: ☐ in ☐ or \_\_\_\_\_  
(c) a cow: ☐ in ☐ or \_\_\_\_\_  
(d) a sheep: ☐ in ☐ or \_\_\_\_\_  
(e) a goat: ☐ in ☐ or \_\_\_\_\_  
(f) a horse: ☐ in ☐ or \_\_\_\_\_  
(g) a goat or a sheep: ☐ in ☐ or \_\_\_\_\_ (h) a horse or a dog: ☐ in ☐ or \_\_\_\_\_  
(i) a pig or a cat: ☐ in ☐ or \_\_\_\_\_ (j) a sheep or a cat: ☐ in ☐ or \_\_\_\_\_



**Maths Fact** If you are an American, the chances are 1 in 150 that you are in jail! How many Americans are likely to be in jail from a town with 7,500 inhabitants? \_\_\_\_\_