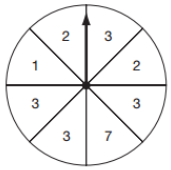
BLM 1 -Probability Questions: EQAO

Multiple Choice Questions

15 A spinner is shown below.

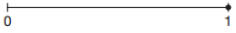


On which of the following number lines does the point represent the probability of spinning an even number?

a


b


c


d


Jane has a package of 40 cards: 30 of the cards are red and 10 of the cards are black. If Jane randomly picks 8 cards, how many cards should she expect to be red?

A 2
B 4
C 6
D 8

16 Isaac and Presley each have a jar of coloured cubes. The contents of their jars are shown in the table below.

Colour of cube	Number of cubes in Isaac's jar	Number of cubes in Presley's jar
Red	6	2
Blue	6	3
Green	5	3
Purple	3	2

They reach into their jars, and each chooses one cube without looking.

What colour of cube has the same probability of being chosen from Isaac's jar as from Presley's jar?

- ○ red
- ○ blue
- ○ green
- ○ purple

There are 2 blue, 5 green, 6 red and 7 purple marbles in a bag. Erin picks one marble from the bag without looking.

What is the probability that she will pick a marble that is purple?

a 7%
b 20%
c 35%
d 54%

Lucas has 5 T-shirts in a drawer: 1 red, 2 yellow, 1 pink and 1 blue. He selects one T-shirt without looking.

What is the probability that Lucas selects a T-shirt that is **not** pink or blue?

a $\frac{1}{5}$
b $\frac{2}{5}$
c $\frac{3}{5}$
d $\frac{4}{5}$

The faces on a fair number cube are labelled 1, 2, 3, 4, 5 and 6. Steven rolls the number cube 48 times.

How many times should Steven expect to roll a 3?

a 3
b 8
c 16
d 24

Henry designs the spinner below and labels the sections with the names of colours.

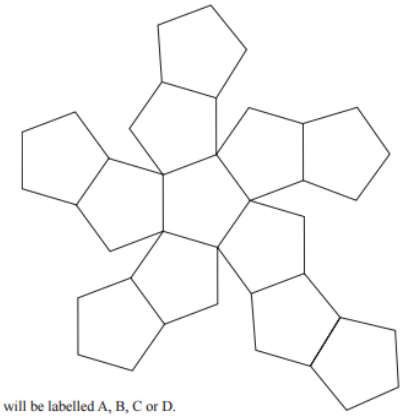
He wants 0.15 to be the probability of the arrow landing on "blue" in one spin.

How many sections should he label "blue"?

a 2
b 3
c 15
d 17

Open Response Questions

8 Lucy is making a game. She uses the net of congruent pentagons below to make a 12-sided figure to roll.



Each pentagon will be labelled A, B, C or D.

Write A, B or C on pentagons of the net so that

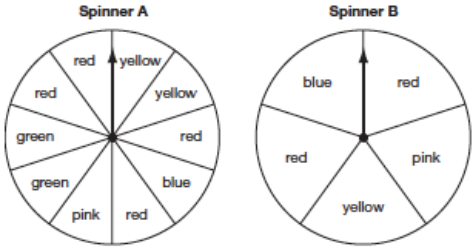
- the probability of rolling an A is $\frac{1}{6}$.
- the probability of rolling a B is $\frac{2}{12}$.
- the probability of rolling a C is $\frac{3}{9}$.

What is the probability of rolling a D?

Justify your answer.

The probability of rolling a D is _____ .

10 Consider the two spinners below. Spinner A is divided into 10 equal sections, and Spinner B is divided into 5 equal sections.



Which colours have the same probability of being spun on Spinner A as they do on Spinner B?

Justify your answers.

Lori has a bag of 24 gumballs. She takes 8 gumballs from the bag without looking. The colours of the 8 gumballs Lori takes from the bag are 4 red, 3 blue and 1 yellow.

Using the colours of the gumballs Lori takes from the bag, predict how many gumballs of each colour were in the bag to start.

Explain your thinking.

The faces of a number cube are labelled 1, 2, 2, 3, 4 and 5. The number cube is rolled 114 times.

- How many times would you expect the number 2 to appear?

Justify your answer.