

## 10.1 Outcomes and Events

**experiment** - an investigation or procedure that has varying results

**outcomes** - all possible results of an experiment (even repetitions)

**event** - collection of outcomes, what actually happened

**favorable outcome** - what you want to happen

**experiment performed at random** - all possible outcomes are equally likely

Ex:

*Possible outcomes*



How many favorable outcomes are there for each of the following events?

(a) Choosing green = 2 outcomes

(b) Choosing blue = 1 outcome

(c) Choosing red = 1 outcome

(d) Choosing yellow = 1 outcome

(e) Choosing purple = 1 outcome



Ex: You roll a number cube.



- (a) What are the possible outcomes?

1, 2, 3, 4, 5, 6

- (b) What are the favorable outcomes of rolling an even number?

2, 4, 6

- (c) What are the favorable outcomes of rolling a number greater than 5?

6

- (d) What are the favorable outcomes of rolling a prime number?

2, 3, 5

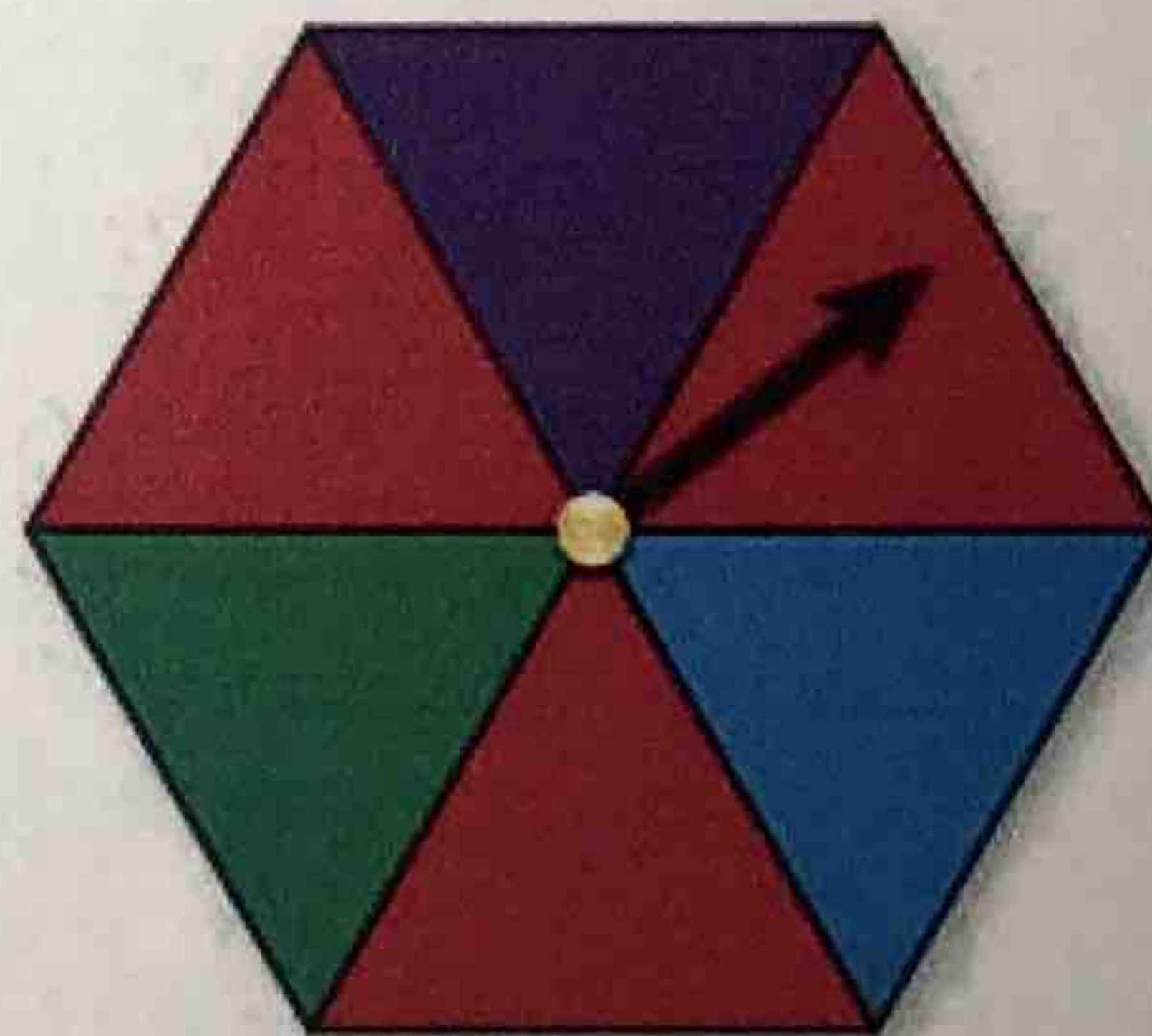
- (e) What are the favorable outcomes of rolling a number divisible by 3?

3, 6

- (f) What are the favorable outcomes of rolling a multiple of 8?

none

Ex: You spin the spinner.



- (a) How many possible outcomes are there?

6 outcomes

- (b) In how many ways can spinning a red occur?

3 ways

- (c) In how many ways can spinning **not** purple occur?

5 ways

What are the favorable outcomes for **not** purple?

red, red, red, blue, green