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Computing conditional probability using a sample space

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A spinner has 8 equally sized slices numbered from 1 to 8. Some are grey and some are white, as shown below.



The slices numbered 1, 6, and 8 are grey. The slices numbered 2, 3, 4, 5, and 7 are white.

Answer the following questions. Write each answer as a fraction.

The wheel will be spun and will stop on a slice at random.

(a) What is the probability that the wheel stops on a white slice?

$\frac{5}{8}$ *white slices total*

(b) What is the probability that the wheel stops on a white slice, given that the wheel stops on a number less than 7?

$\frac{4}{6}$ *to only look at #'s less than 7*



$$\frac{4}{6} \text{ white (less than 7) total}$$

Note: The Solve feature is not available to st

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Six balls numbered from 1 to 6 are placed in a bag. Some are white and some are grey, as shown below.



*Given
look after
already know*

The balls numbered 2, 3, and 5 are white. The balls numbered 1, 4, and 6 are grey.

Answer the following questions. Write each answer as a fraction.

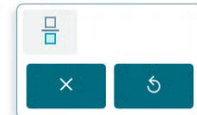
A ball will be randomly selected.

(a) What is the probability that the number 4 ball is selected?

$\frac{1}{6}$ *#4 total*

(b) What is the probability that the number 4 ball is selected, given that the selected ball is grey?

$\frac{1}{3}$ *#4 (grey) grey*



$$\frac{1}{3} = 0.33$$