

# Practice 2-6

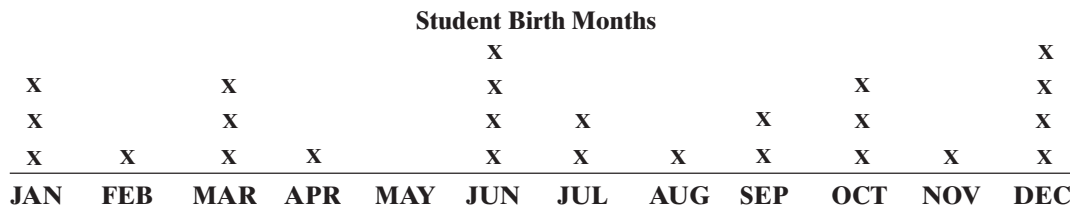
## Theoretical and Experimental Probability

A driver collected data on how long it takes to drive to work.

<b>Time in minutes</b>	20	25	30
<b>Number of trips</b>	4	8	2

- Find  $P$ (the trip will take 25 min).
- Find  $P$ (the trip will take 20 min).
- Find  $P$ (the trip will take at least 25 min).

Use the data in the line plot to find each probability.



- $P$ (June)
- $P$ (October)
- $P$ (first six months of year)
- $P$ (May)
- $P$ (not December)
- $P$ (last three months of year)

A cereal manufacturer selects 100 boxes of cereal at random. Ninety-nine of the boxes are the correct weight. Find each probability.

- $P$ (the cereal box is the correct weight)
- $P$ (the cereal box is not the correct weight)
- There are 24,000 boxes of cereal. Predict how many of the boxes are the correct weight.
- One letter is chosen at random from the word *ALGEBRA*. Find each probability.
  - $P$ (the letter is A)
  - $P$ (the letter is a vowel)
- Patrice has a 40% chance of making a free throw. What is the probability that she will miss the free throw?
- A box of animal crackers contains five hippos, two lions, three zebras, and four elephants. Find the probability if one animal cracker is chosen at random.
  - $P$ (a hippo)
  - $P$ (not an elephant)
  - $P$ (an elephant or a lion)
- Anthony is making a collage for his art class by picking shapes randomly. He has five squares, two triangles, two ovals, and four circles. Find each probability.
  - $P$ (circle is chosen first)
  - $P$ (a square is not chosen first)
  - $P$ (a triangle or a square is chosen first)

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