Name Class Date

Practice 2-6 Theoretical and Experimental Probability

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Time in minutes** | 20 | 25 | 30 |
| **Number of trips** | 4 | 8 | 2 |

**1.** Find *P*(the trip will take 25 min).

**2.** Find *P*(the trip will take 20 min).

**3.** Find *P*(the trip will take at least 25 min).

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

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**4.** *P*(June) **5.** *P*(October) **6.** *P*(first six months of year)

**7.** *P*(May) **8.** *P*(not December) **9.** *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.**

**10.** *P*(the cereal box is the correct weight)

**11.** *P*(the cereal box is not the correct weight)

**12.** There are 24,000 boxes of cereal. Predict how many of the boxes are the correct weight.

**13.** One letter is chosen at random from the word *ALGEBRA*. Find each probability.

**a.** *P*(the letter is *A*) **b.** *P*(the letter is a vowel)

**14.** Patrice has a 40% chance of making a free throw. What is the probability that she will miss the free throw?

**15.** 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.

**a.** *P*(a hippo) **b.** *P*(not an elephant)

**c.** *P*(an elephant or a lion)

**16.** 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.

**a.** *P*(circle is chosen first) **b.** *P*(a square is not chosen first)

**c.** *P*(a triangle or a square is chosen first)