# Lesson 2 Practice Problems

1. Six papers are placed in a bag with names written on them. The names are: Lin, Mai, Mai, Noah, Priya, and Priya. If one name is chosen at random, what is the probability that it is Priya?

   A. $\frac{1}{4}$

   B. $\frac{1}{6}$

   C. $\frac{2}{4}$

   D. $\frac{2}{6}$

2. Select **all** of the words for which the probability of selecting the letter E at random is $\frac{1}{3}$.

   A. THE

   B. BEST

   C. SNEEZE

   D. FREES

   E. SPEECH

3. Design a situation where the probability of one event is $\frac{1}{5}$ and another event is $\frac{1}{10}$. Explain your reasoning.
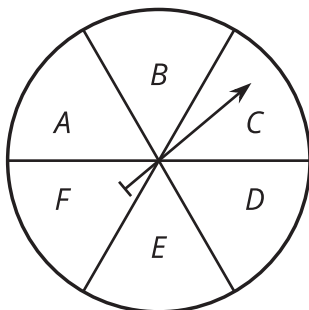
4. What is the probability of the spinner landing on the section labeled B?
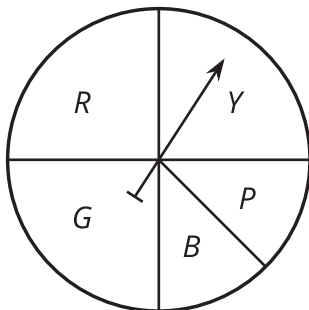
A. $\frac{1}{8}$

B. $\frac{1}{5}$

C. $\frac{1}{4}$

D. $\frac{1}{2}$

(From Unit 8, Lesson 1.)

5. This spinner is spun 300 times. Estimate the number of times it would be expected to land on the section labeled B.
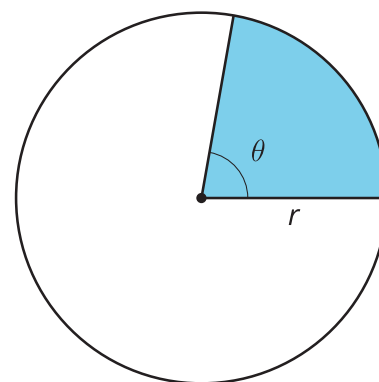

(From Unit 8, Lesson 1.)

6. A circle has radius 5 units. For each angle measure, find the area of a sector of this circle with that central angle.

    a. π radians

    b. 3 radians

(From Unit 7, Lesson 13.)

7. Select **all** formulas that could be used to find the area of this sector. The angle θ is measured in radians.

    A. $\frac{1}{2}r^2\theta$

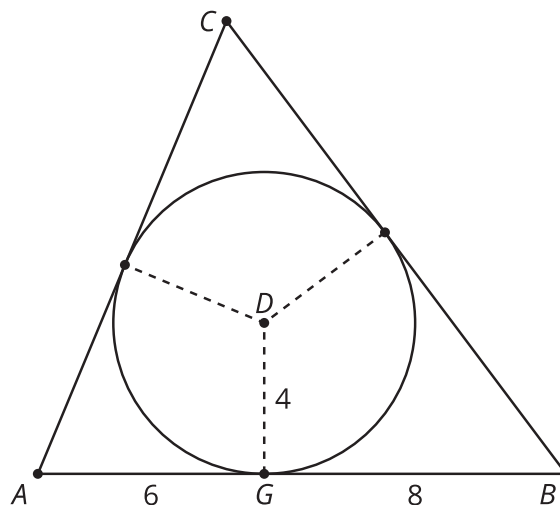   B. $\frac{\theta}{2\pi} \cdot \pi r^2$

    C. $\frac{\theta}{360} \cdot \pi r^2$

    D. $\frac{\pi^2}{r} \cdot \theta$

    E. $\frac{\theta}{2\pi} \cdot 2\pi r$
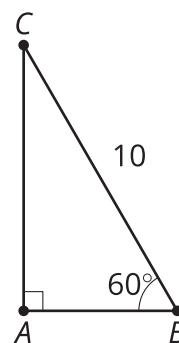
(From Unit 7, Lesson 13.)

8. Triangle ABC is shown with an inscribed circle of radius 4 units centered at point D. The inscribed circle is tangent to side AB at point G. The length of AG is 6 units and the length of BG is 8 units. What is the measure of angle B?

A. 60 degrees

B. 30 degrees

C. $2\arctan\left(\frac{1}{2}\right)$

D. $\arctan\left(\frac{1}{2}\right)$

(From Unit 7, Lesson 7.)

9. Select **all** the true statements.

A. Angle C is 30 degrees.

B. Side AC is 5 units.

C. Side AB is 5 units.

D. Side AC is $5\sqrt{2}$ units.

E. Side AC is $10\sqrt{3}$ units.

(From Unit 4, Lesson 3.)