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.
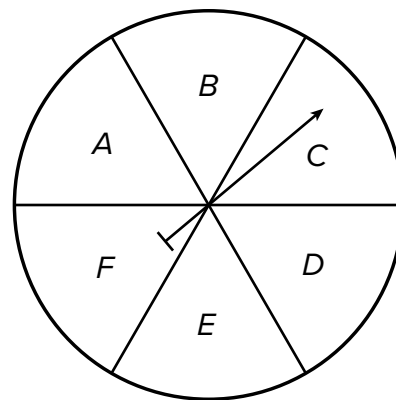
4. What is the probability of the spinner landing on the section labeled B? **(Lesson 8-1)**

   (A.) $\frac{1}{8}$

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

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

   (D.) $\frac{1}{2}$
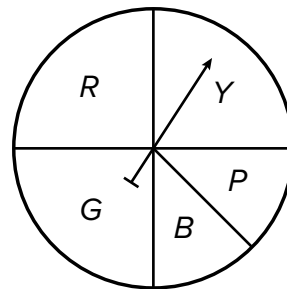
NAME _____ DATE _____ PERIOD _____

5. This spinner is spun 300 times. Estimate the number of times it would be expected to land on the section labeled B. **(Lesson 8-1)**

6. A circle has radius 5 units. For each angle measure, find the area of a sector of this circle with that central angle. **(Lesson 7-13)**

  a. π radians

  b. 3 radians

7. Select **all** formulas that could be used to find the area of this sector. The angle θ is measured in radians. **(Lesson 7-13)**
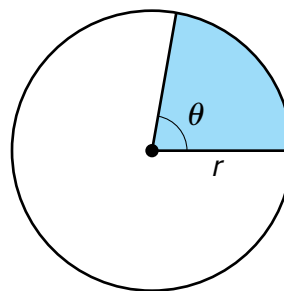
  A. $\frac{1}{2}r^2\theta$

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

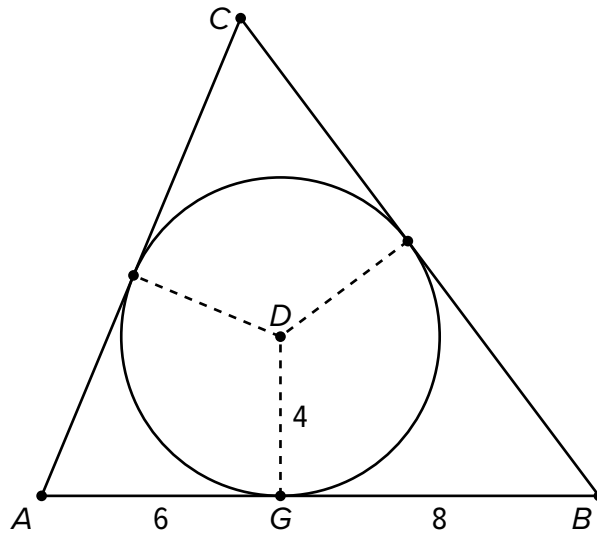 **C.** $\frac{\theta}{360} \cdot \pi r^2$

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

  E. $\frac{\theta}{2\pi} \cdot 2\pi r$

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*? **(Lesson 7-7)**

A. 60 degrees

B. 30 degrees

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

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

9. Select **all** the true statements. **(Lesson 4-3)**

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.