

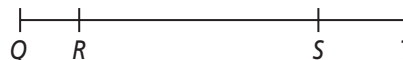
10-8 Standardized Test Prep

Geometric Probability

Multiple Choice

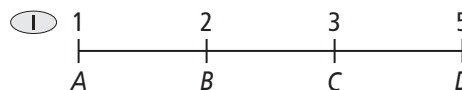
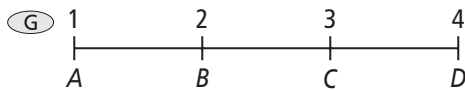
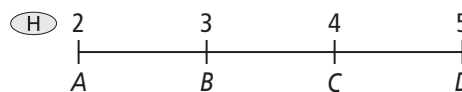
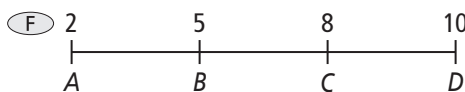
For Exercises 1-4, choose the correct letter.

1. Point X on \overline{QT} is chosen at random. What is the probability that X is on \overline{ST} ?



- (A) $\frac{QT}{ST}$ (B) $\frac{ST}{QT}$ (C) $\frac{QS}{ST}$ (D) $\frac{ST}{QS}$

2. Point P on \overline{AD} is chosen at random. For which of the figures below is the probability that P is on \overline{BC} 25%? Note: Diagrams not drawn to scale.



3. Point P is chosen at random in a circle. If a square is inscribed in the circle, what is the probability that P lies outside the square?

- (A) $1 - \frac{1}{2\pi}$ (B) $1 - \frac{2}{\pi}$ (C) $1 - \frac{\pi}{2}$ (D) $1 - \frac{1}{4\pi}$

4. You have a 7-cm straw and a 10-cm straw. You want to cut the 10-cm straw into two pieces so that the three pieces make a triangle. If you cut the straw at a random point, what is the probability that you can make a triangle?

- (F) 30% (G) 40% (H) 60% (I) 70%

Short Response

5. Point P is chosen at random in $\odot S$. What is the probability that P lies in the shaded segment shown in the diagram at the right? Show your work.

