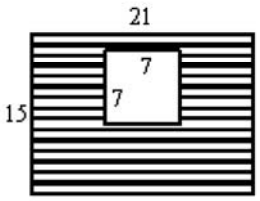
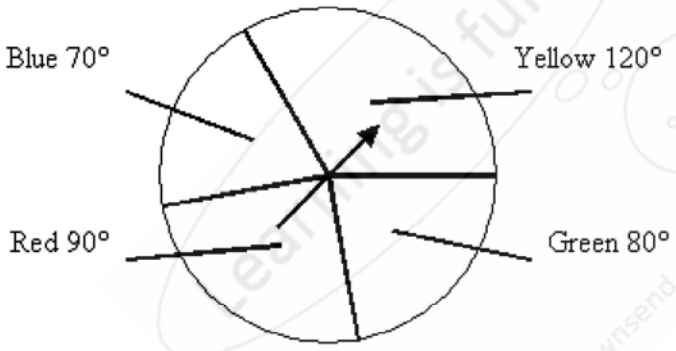
**Name:** _____ **Class:** _____ **Date:** _____ **ID: A**

## Geometric Probability

1. If a point is selected at random, what is the probability that it will lie within the shaded rectangular region rather than the unshaded rectangular region?

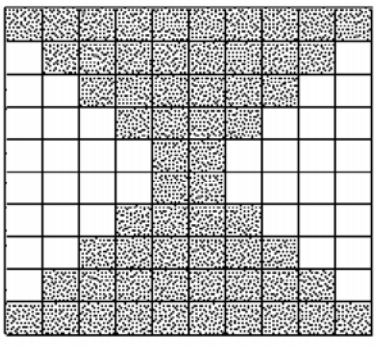



2. A trivia game has four categories of questions. The questions are on cards colored red, blue, green, and yellow. There are a different number of questions in each category, so the game spinner that determines a player's category is divided into sectors proportional to the number of cards of each color, as shown on the spinner below. If the cards in a category are all used, then a player spinning that color loses a turn.




On the first spin of the game, what is the probability that a player will be assigned a question from the red category? Give your answer as a decimal rounded to the nearest hundredth.

____ 3. Find the probability that a point chosen at random lies in the shaded region.



a. 0.62
b. 0.66
c. 0.70
d. 0.60



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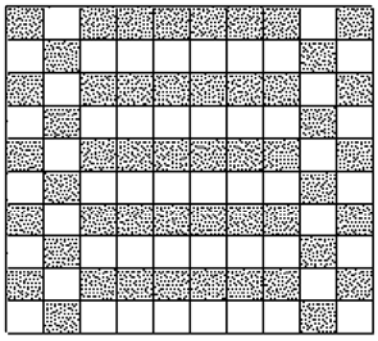
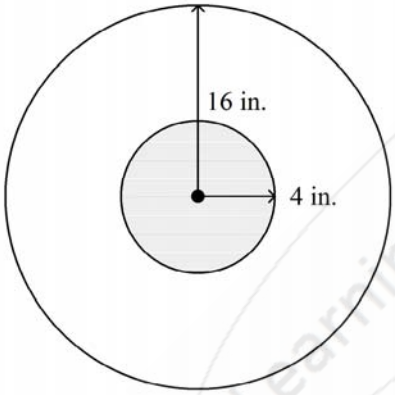
____ 4. Find the probability that a point chosen at random lies in the shaded region.



a. 0.52
b. 0.58
c. 0.50
d. 0.60

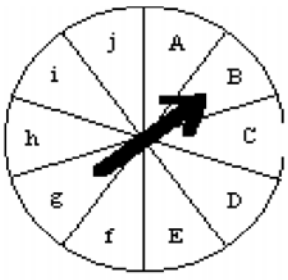
____ 5. If a dart hits the target at random, what is the probability that it will land in the shaded region?




Drawing not to scale

a. $\frac{1}{16}$
b. $16\pi$
c. $\frac{1}{16}\pi$
d. $\frac{1}{4}$

____ 6. If all possible results are equally likely, what is the probability that a spin of the spinner will land on a lower case letter or a consonant?




a. 0.7
b. 0.5
c. 0.8
d. 0.4



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## Geometric Probability
## Answer Section

1. $\frac{38}{45}$
2. 0.25
3. D

   There are 100 boxes in the grid. So the probability is found by counting the number of shaded boxes and dividing by 100. For example, if there are 56 shaded boxes, then the probability that a point chosen at random lies in the shaded region is $56 \div 100 = 0.56$. Alternately, you may first want to count the number of unshaded boxes, then subtract that from 100 to get the number of shaded boxes.

| | Feedback |
|---|---|
| A | How many shaded squares are there? |
| B | Did you count the shaded squares? |
| C | Count the number of shaded boxes and divide the result by 100 to get the probability. |
| D | Correct! |

4. C

   There are 100 boxes in the grid. So the probability is found by counting the number of shaded boxes and dividing by 100. For example, if there are 56 shaded boxes, then the probability that a point chosen at random lies in the shaded region is $56 \div 100 = 0.56$. Alternately, you may first want to count the number of unshaded boxes, then subtract that from 100 to get the number of shaded boxes.

| | Feedback |
|---|---|
| A | Count the number of shaded boxes and divide the result by 100 to get the probability. |
| B | How many shaded squares are there? |
| C | Correct! |
| D | Did you count the shaded squares? |

5. A
6. C



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