Name _____ Date _____

Probability of Simple Events Exit Ticket

Directions: Answer each question. Type number answers with digits, and use a decimal point when needed. When an answer is a percent, type the number without the % sign.

1. A bag holds 5 red, 3 blue and 2 green marbles, 10 marbles in all. One marble is drawn at random, and each marble is equally likely to be drawn. What is the probability that it is red? Type your answer as a decimal.

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2. A fair number cube has faces numbered 1 to 6. It is rolled once. What is the probability of rolling a number greater than 4?

A. 2/3 B. 1/2 C. 1/3 D. 1/6

3. Which event is unlikely? Each marble is drawn at random, and the number cube is fair, with faces numbered 1 to 6.

A. Rolling a number less than 7 on the number cube

B. Drawing a green marble from a bag of 1 green and 19 yellow marbles

C. Drawing a yellow marble from a bag of 1 green and 19 yellow marbles

D. Rolling an even number on the number cube

4. A fair spinner has 20 equal sections, and each section is equally likely to be landed on. Of the sections, 7 are blue, 8 are red and 5 are yellow. The spinner is spun once. What is the probability that it lands on blue, as a percent? Type the percent as a number, without the % sign.

_____ %

5. A soccer team has 25 players: 4 goalkeepers, 9 defenders, 7 midfielders and 5 forwards. The coach picks one player at random to lead warm-ups, and each player is equally likely to be picked. What is the probability that the player is a defender? Type your answer as a decimal.

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6. A raffle sells 200 tickets, and Kenji buys 8 of them. One winning ticket is drawn at random, and every ticket is equally likely to be drawn. What is the probability that Kenji does **not** win? Type your answer as a decimal.

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7. One card is drawn at random from 10 cards numbered 1 to 10, and each card is equally likely to be drawn. Which events have a probability of 1/2? Select the 3 that apply.

☐ A. Drawing a number greater than 5

☐ B. Drawing a multiple of 3

☐ C. Drawing an odd number

☐ D. Drawing a number greater than or equal to 5

☐ E. Drawing an even number

☐ F. Drawing a number less than 5

8. A bag holds 4 red, 6 blue and 5 white marbles, 15 marbles in all. Kofi wants the probability that one marble drawn at random is blue. His work is shown.

1. Blue marbles: 6
2. Total marbles: 15
3. Probability of blue $= 15/6$
4. $15/6 = 2.5$

Which step has the first mistake?

A. Probability of blue $= 15/6$

B. Blue marbles: 6

C. There is no mistake.

D. Total marbles: 15

E. $15/6 = 2.5$