

# Sample quiz

Math 142 - Fall 2003

NAME: \_\_\_\_\_

Quiz #3

15

Sections 11.1 - 11.2

Seat: \_\_\_\_\_

2pts

1. a. If a fair coin is tossed three times, how many possible outcomes are there?

$$2 \cdot 2 \cdot 2 = 8$$

8

b. What is the probability of getting one head and two tails on the three tosses?

$\frac{3}{8}$



3pts

2. a. Two fair dice are rolled. What is the probability that the sum is 10?

$$6 \cdot 6 = 36$$

- 4, 6
- 5, 5
- 6, 4

$\frac{3}{36}$

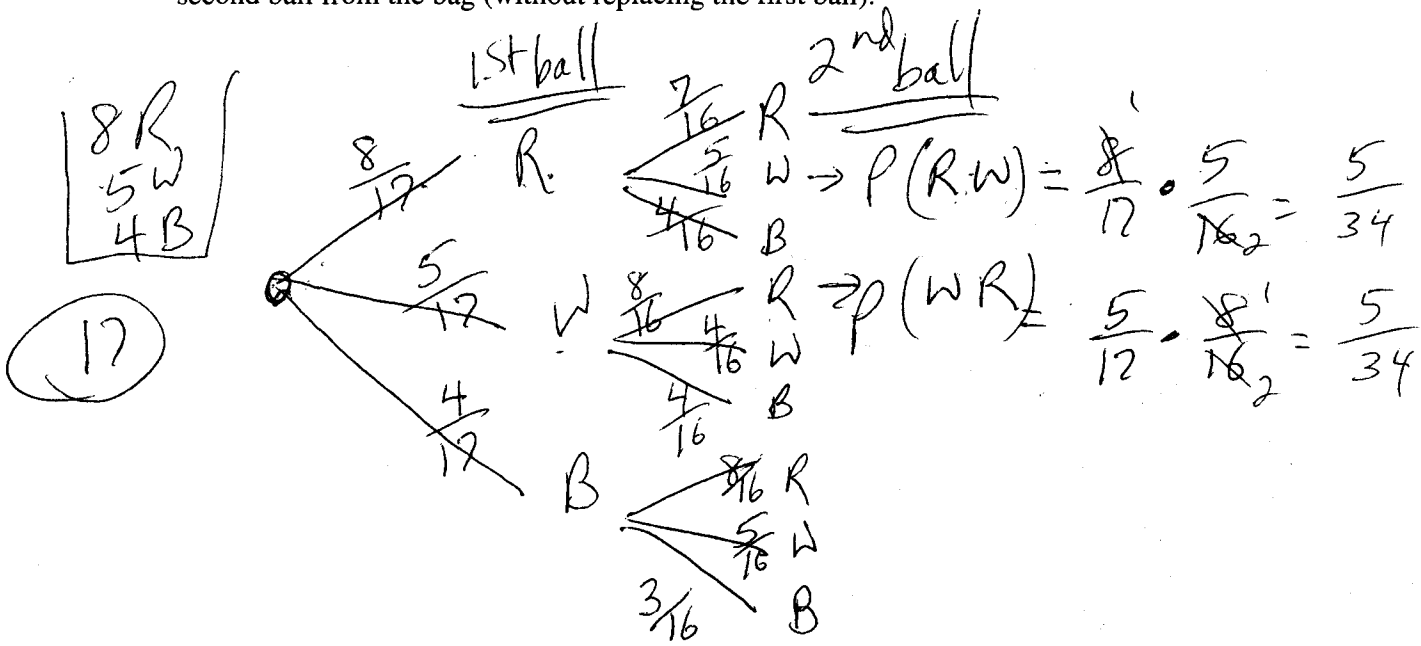
b. What is the probability that the sum is not 10?

$\frac{33}{36}$

3. A bag contains 8 red balls, and 5 white balls, and 4 blue balls.

6 pts.

a. Draw a probability tree diagram to illustrate drawing one ball from the bag and then drawing a second ball from the bag (without replacing the first ball).



4pts

Use the tree diagram to help you answer the following question:

b. What is the probability of getting a red ball and a white ball?

$$P(RW \text{ or } WR) = P(RW) + P(WR)$$

$$= \frac{5}{34} + \frac{5}{34}$$

$$= \frac{10}{34}$$

$$= \frac{5}{17}$$