

Name Key  
 Date \_\_\_\_\_  
 Class \_\_\_\_\_

10.2C Practice: Probability

These are the results of the last math test. The teacher determines that anyone with a grade of more than 70 passed the test. Find the probability for the indicated grade. Record your answer as a fraction, decimal, and percent.

Grade	65	70	80	90	100
# of Students	5	3	12	10	2

1.  $P(70)$

$$\frac{3}{32} = 0.09375 = 9.375\%$$

2.  $P(100)$

$$\frac{1}{16} = 0.0625 = 6.25\%$$

3.  $P(80)$

$$\frac{3}{8} = 0.375 = 37.5\%$$

4.  $P(\text{passing})$

$$\frac{3}{4} = 0.75 = 75\%$$

5.  $P(\text{grade} > 80)$

$$\frac{3}{8} = 0.375 = 37.5\%$$

6.  $P(60)$

$$0$$

7.  $P(\text{failing})$

$$\frac{1}{4} = 0.25 = 25\%$$

8.  $P(\text{grade} \leq 80)$

$$\frac{5}{8} = 0.625 = 62.5\%$$

The game of Marbles dates back to Roman times and is one of the world's oldest games. Although rules vary depending on locality and country, the object of the game is to roll, throw, or drop against an opponent's marbles to knock them from a designated area, usually a circle. The person knocking the most marbles from the area wins.

Find the probability of drawing the following marbles from a bag containing 20 red, 25 blue, 15 green, 10 white, and 30 black marbles. Record your answer as a fraction, decimal, and percent.

9.  $P(\text{blue})$

$$\frac{1}{4} = 0.25 = 25\%$$

10.  $P(\text{black})$

$$\frac{3}{10} = 0.3 = 30\%$$

11.  $P(\text{green})$

$$\frac{3}{20} = 0.15 = 15\%$$

12.  $P(\text{red})$

$$\frac{1}{5} = 0.20 = 20\%$$

13.  $P(\text{pink})$

$$0$$

14.  $P(\text{white})$

$$\frac{1}{10} = 0.1 = 10\%$$

15.  $P(\text{red or blue})$

$$\frac{9}{20} = 0.45 = 45\%$$

16.  $P(\text{marble})$

$$1 = 100\%$$