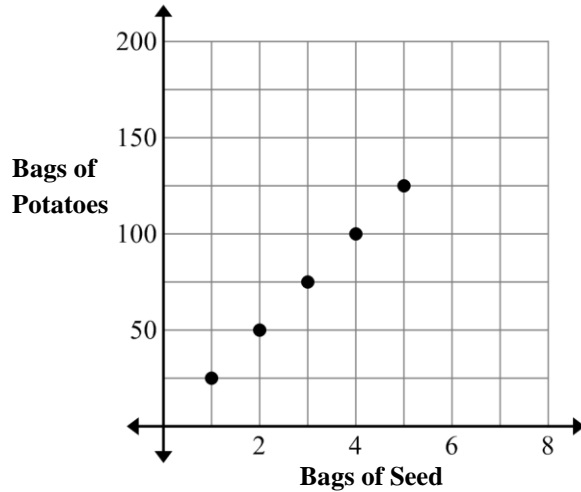


Predictions, Probability & Odds

Long-Term Memory Review – Grade 8

Review 1

- The graph shows the relationship between the number of bags of seed and the number of bags of potatoes grown from seed.



Based on this graph, what is the BEST prediction of the number of bags of potatoes grown from six bags of seed?

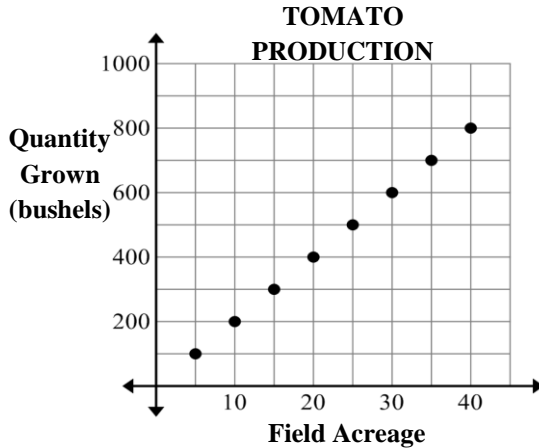
- A. 60 B. 80 C. 120 D. 150
- A bag contains 3 red marbles, 2 black marbles, 4 blue marbles, and 5 white marbles. If a marble is randomly selected, what is the probability of selecting a blue marble?
 - From Question 3, determine the odds in favor of selecting a blue marble.

Predictions, Probability & Odds

Long-Term Memory Review – Grade 8

Review 2

1. The scatter plot below shows the relationship between a tomato field's acreage and the quantity of bushels of tomatoes grown in one season.



- a) Based on this scatterplot, what is the BEST prediction of the number of bushels of tomatoes grown in a 27-acre field?

A. 460 B. 520 C. 540 D. 560

- b) Make a prediction for a 60-acre field. Number of bushels grown = _____

2. The table shows the relationship between the diameter of a hubcap and its cost.

- a) Based on the table, what is the BEST prediction of the cost of a hubcap with a diameter of 20 inches?

A. \$65 B. \$70 C. \$75 D. \$80

- b) Make a prediction for a hubcap with a diameter of 25 inches. Cost = _____

Kim's Discount Hubcaps	
Hubcap Diameter (inches)	Cost
14	\$40
15	\$45
16	\$50
17	\$55
18	\$60

3. A bag contains 3 red marbles, 2 black marbles, 4 blue marbles, and 5 white marbles. If a marble is randomly selected, what is the probability of NOT selecting a red marble?

4. From Question 3, determine the odds against selecting a red marble.

Predictions, Probability & Odds

Long-Term Memory Review – Grade 8

Review 3

1. The table below shows the relationship between how many hours a student studies per week and the student's mean test score.

Study Time and Test Scores	
Hours Studied	Mean Test Scores
1	70
5	80
10	90
15	95
20	100

Based on this information, what is the BEST prediction of the mean test score of a student who studies for 12 hours per week?

- A. 87 B. 88 C. 92 D. 93
2. The following is a table of values of a linear function.

x	y
4	9
8	17
12	25
16	33

What is the value of y when x is 10?

- A. 19 B. 21 C. 23 D. 29
3. The table shows the favorite rock groups for 60 students. If one student is selected at random, what is the probability that the student prefers *Fast Lane* or *Hidden Past*?

Rock Group	Students Preferring
Wild Lion	35
Fast Lane	10
Hidden Past	15

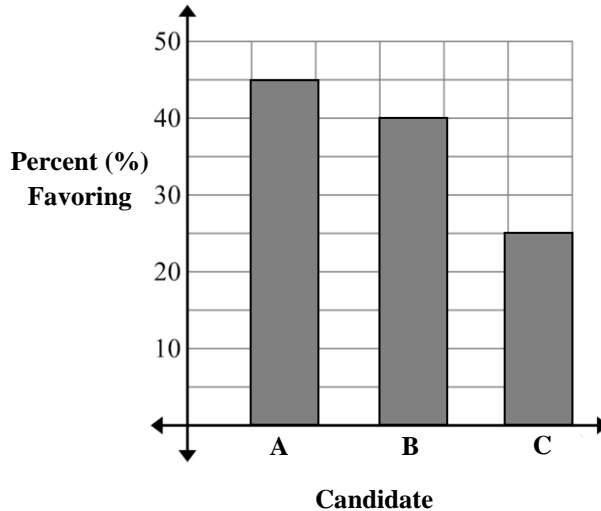
4. From Question 3, determine the odds in favor of selecting a student who prefers *Fast Lane* or *Hidden Past*.

Predictions, Probability & Odds

Long-Term Memory Review – Grade 8

Review 4

1. The graph below shows the preferences of likely voters for a Presidential election.



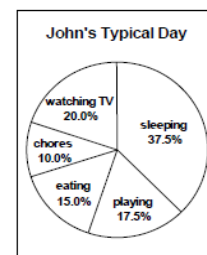
One hundred twenty-five million votes are cast. Based on these results, about how many votes would Candidate A receive?

- A. 50,000,000 B. 56,250,000 C. 62,500,000 D. 68,750,000
2. The following table shows the height of a child with respect to his age.

Age in Years	Height in Inches
2	36
4	44
6	51
8	57
10	62

About how many inches tall was the child when he was 7 years old?

3. Use the circle graph shown. If one were to randomly choose a time during the day to see what John is doing, what is the probability that John is engaged in recreation (playing or watching TV)?
4. From Question 3, what are the odds against John being engaged in recreation?



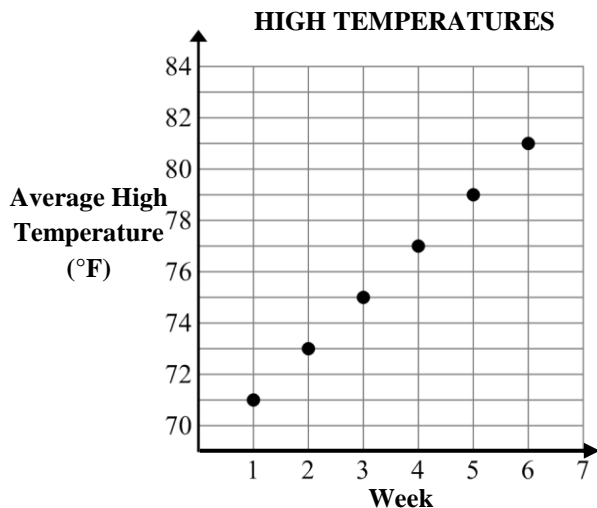
- A. 5:3 B. 8:3 C. 3:5 D. 5:8

Predictions, Probability & Odds

Long-Term Memory Review – Grade 8

Quiz

1. The scatterplot below shows the weekly average high temperatures for the past 6 weeks.



Based on this scatterplot, what is the BEST prediction of the weekly average high temperature for Week 8?

- A. 83° F B. 85° F C. 87° F D. 89° F
2. The pattern in the table is consistent for all values. Use this table to answer the following questions.

x	y
2	2
5	10
8	24
11	44

- a) What would be the value of y when x equals 14?
- b) Which would be the best estimate of the value of y when x equals 7?
- A. 15 B. 17 C. 19 D. 21
3. A bag contains 5 red marbles, 6 black marbles, 4 blue marbles, and 5 white marbles. If a marble is randomly selected, what is the probability of selecting a blue marble?
4. From Question 3, determine the odds in favor of selecting a blue marble.

Predictions, Probability & Odds

Long-Term Memory Review – Grade 8

Answers

Review 1- Answers

- 1) D
- 2) $\frac{2}{7}$
- 3) 2:5

Review 2- Answers

- 1) a) C b) 60 acres = 1200 bushels
- 2) a) B b) 25 inches = \$95
- 3) $\frac{11}{14}$
- 4) 11:3

Review 3- Answers

- 1) C
- 2) B
- 3) $\frac{5}{12}$
- 4) 5:7

Review 4- Answers

- 1) B
- 2) 54 inches tall
- 3) 37.5% or $\frac{3}{8}$
- 4) A

Quiz - Answers

- 1) B
- 2) a) 70 b) C
- 3) $\frac{1}{5}$
- 4) 1:5