

Student: \_\_\_\_\_  
Date: \_\_\_\_\_  
Time: \_\_\_\_\_

Instructor: Timothy Redl  
Course: Math 1310 Fall 2015 - Redl  
Book: Blitzer: Thinking Mathematically, 6e

Assignment: Practice for Final Exam

1. Identify a pattern in the given list of numbers. Then use this pattern to find the next number. (More than one pattern might exist, so it is possible that there is more than one correct answer.)

4, 7, 10, 13, 16, \_\_\_\_\_

The next number is .

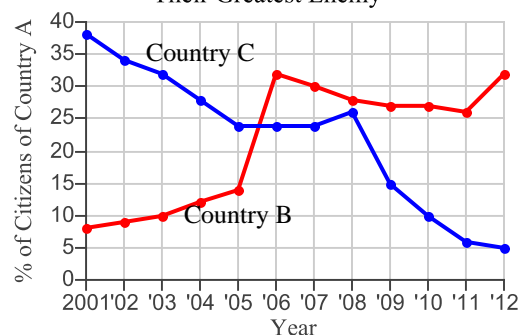
2. Identify a pattern in the given list of numbers. Then use this pattern to find the next number. (More than one pattern might exist, so it is possible that there is more than one correct answer.)

5, 25, 125, 625, 3125, \_\_\_\_\_

The next number is .

3. According to a recent survey, in 2012 almost a third of Country A named Country B their country's greatest enemy. The line graphs to the right show the percentage of citizens of Country A who considered either Country C or Country B their country's greatest enemy from 2001 through 2012. Use this information to complete parts (a) through (c) below.

Countries that Citizens from Country A Consider Their Greatest Enemy



- a. Find an estimate for the percentage of citizens of Country A who considered Country C their country's greatest enemy in 2011.

%

(Type a whole number.)

- b. Between which two years did the percentage of citizens of Country A who considered Country C their country's greatest enemy decrease at the greatest rate?

- A. 2003 and 2004  
 B. 2010 and 2011  
 C. 2004 and 2005  
 D. 2008 and 2009

- c. In which year did 5% of citizens of Country A consider Country C their country's greatest enemy?

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4. A television sells for \$750. Instead of paying the total amount at the time of the purchase, the same television can be bought by paying \$150 down and \$50 a month for 14 months. How much is saved by paying the total amount at the time of the purchase?

\$  is saved by paying the total amount at the time of purchase.

5. Determine whether the statement is true or false.

$$26 \in \{10, 11, 12, \dots, 23\}$$

Choose the correct answer below.

- A. True, because 26 is a natural number greater than or equal to 10 and less than or equal to 23.  
 B. False, because 26 is a natural number greater than or equal to 10 and less than or equal to 23.  
 C. False, because 26 is not a natural number greater than or equal to 10 and less than or equal to 23.  
 D. True, because 26 is not a natural number greater than or equal to 10 and less than or equal to 23.

6. Determine whether the given statement is true or false.

$$18 \in \{17, 19, 21, \dots, 35\}$$

Choose the correct answer below.

- True  
 False

7. Find the cardinal number for the given set.

$$A = \{14, 20, 26, 32, 40\}$$

The cardinal number is .

(Type a whole number.)

8. Select  $\subseteq$  or  $\not\subseteq$  for the blank so that the resulting statement is true.

$$\{5, 8, 11, 14, 17\} \underline{\hspace{1cm}} \{14, 17, 11, 5, 8\}$$

Choose the correct answer below.

- $\not\subseteq$   
  $\subseteq$

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9. Determine whether  $\subseteq$ ,  $\subset$ , both, or neither can be placed in the blank to make the statement true.

$$\{1, 5, 9, 13, 17\} \underline{\hspace{1cm}} \{17, 1, 5, 9, 13\}$$

Choose the correct answer below.

- only  $\subset$
- only  $\subseteq$
- both  $\subseteq$  &  $\subset$
- None of the above

10. For the given set, first calculate the number of subsets for the set, then calculate the number of proper subsets.

$$\{12, 16, 2, 20\}$$

The number of subsets is .

The number of proper subsets is .

11. Find the set  $A \cap B$ .

$$U = \{1, 2, 3, 4, 5, 6, 7, 8\}$$

$$A = \{1, 2, 3, 4\}$$

$$B = \{1, 2, 6\}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A.  $A \cap B = \{\text{■}\}$  (Use a comma to separate answers as needed.)
- B.  $A \cap B$  is the empty set.

12. Find the set  $A \cup B$ .

$$U = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$$

$$A = \{1, 4, 6, 8\}$$

$$B = \{3, 1, 10\}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A.  $A \cup B = \{\text{■}\}$  (Use a comma to separate answers as needed.)
- B.  $A \cup B$  is the empty set.

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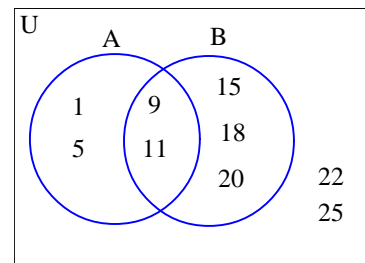
13. Let  $U = \{ 7, 8, 9, 10, 11, 12, 13 \}$ ,  
 $A = \{ 9, 11, 12, 13 \}$ .

Use the roster method to write the set  $A'$ .

$$A' = \{ \square \}$$

(Use a comma to separate answers as needed.)

14. Use the Venn diagram to represent set A in roster form.

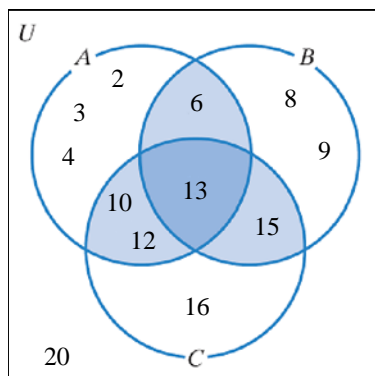


$$A = \{ \square \}$$

(Use a comma to separate answers as needed.)

15. Politics. If 11,177 people voted for a politician in his first election, 14,191 voted for him in his second election, and 8,267 voted for him in the first and second elections, how many people voted for this politician in the first or second election?

16. Use the Venn diagram shown to list the set C in roster form.



C =

- A. {16}  
 B. {10,12,13,15}  
 C. {10,12,13,15,16}  
 D. {10,12,13,15,16,20}

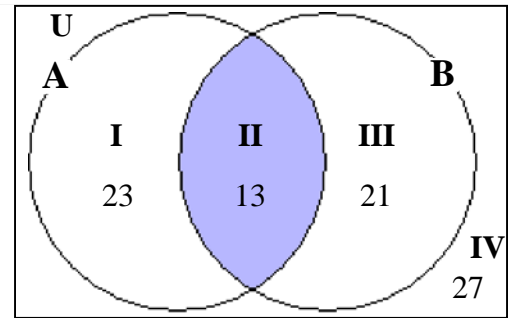
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17. Use the given Venn diagram, which shows the number of elements in regions I through IV to answer the following question.

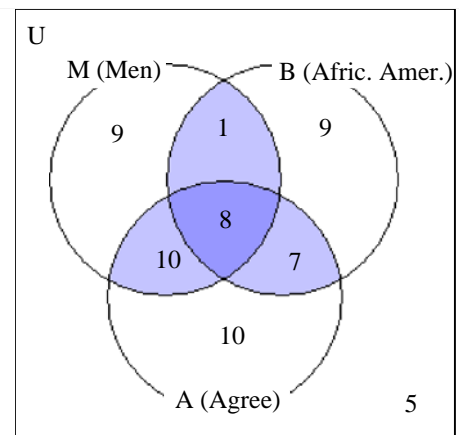
How many elements belong to set A?



There are  elements that belong to set A.  
(Simplify your answer.)

18. A poll asked respondents if they agreed with the statement that colleges should reserve a certain number of scholarships exclusively for minorities and women. Hypothetical results of the poll are tabulated in the Venn diagram. How many respondents agreed with the statement?

The number of respondents that agreed with the statement is .



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19. A survey of 131 college students was taken to determine the musical styles they liked. Of those, 39 students listened to rock, 44 to classical, and 32 to jazz. Also, 14 students listened to rock and jazz, 25 to rock and classical, and 17 to classical and jazz. Finally, 8 students listened to all three musical styles. Construct a Venn diagram and determine the cardinality for each region. Use the completed Venn Diagram to answer the following questions.

a. How many listened to only rock music?

$$n(\text{only rock}) = \square$$

b. How many listened to classical and jazz, but not rock?

$$n(\text{classical and jazz, not rock}) = \square$$

c. How many listened to classical or jazz, but not rock?

$$n(\text{classical or jazz, not rock}) = \square$$

d. How many listened to music in exactly one of the musical styles?

$$n(\text{exactly one style}) = \square$$

e. How many listened to music in exactly two of the musical styles?

$$n(\text{exactly two styles}) = \square$$

f. How many did not listen to any of the musical styles?

$$n(\text{none}) = \square$$

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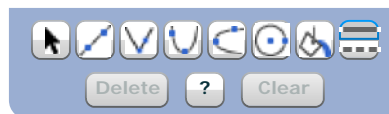
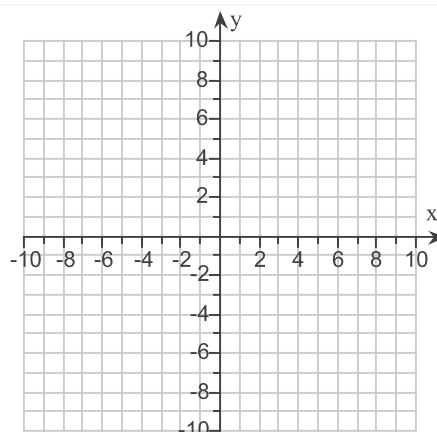
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20. Graph the equation.

$$y = 2x + 7$$

Use the graphing tool to graph the equation.



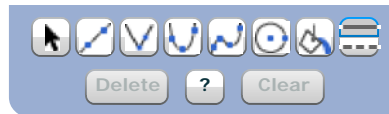
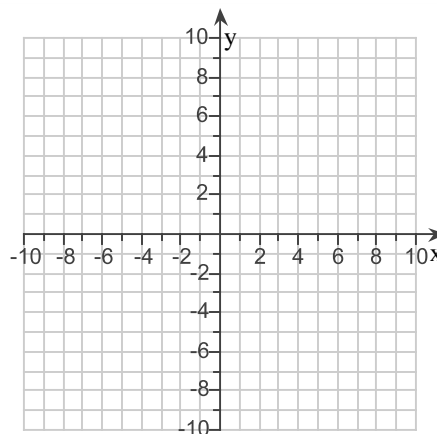
21. Evaluate  $f(x)$  for the given values for  $x$ . Then use the ordered pairs  $(x, f(x))$  from the table to graph the function.

$$f(x) = x^2 + 5$$

For each value of  $x$ , evaluate  $f(x)$ .

| $x$ | $f(x) = x^2 + 5$     |
|-----|----------------------|
| -2  | <input type="text"/> |
| -1  | <input type="text"/> |
| 0   | <input type="text"/> |
| 1   | <input type="text"/> |
| 2   | <input type="text"/> |

Use the graphing tool to graph the function.





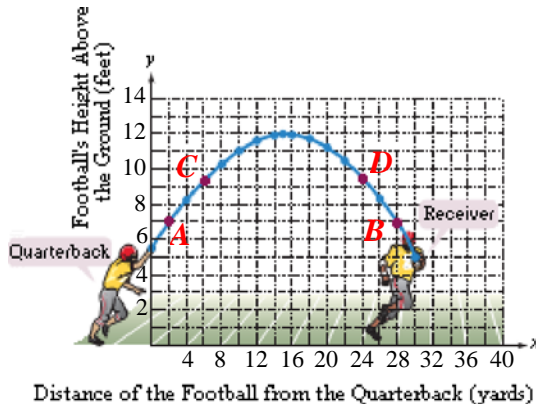


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24. A football is thrown by a quarterback to a receiver. The points in the figure show the height of the football, in feet, above the ground in terms of its distance, in yards, from the quarterback. Use this information to solve the problem.



Find the coordinates of point B.

(Type an ordered pair. Use integers or decimals for any numbers in the expression.)

Interpret the coordinates.

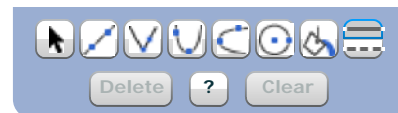
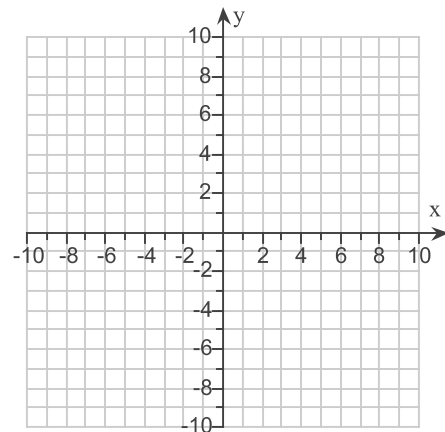
When the ball has traveled a distance of

|         |   |         |
|---------|---|---------|
| feet,   | it is at a height of <input type="text"/> | meters. |
| yards,  |   | feet.   |
| meters, |   | yards.  |

25. Plot the intercepts to graph the equation.

$$2x - 4y = 4$$

Use the graphing tool to graph the equation. Use the intercepts when drawing the line. If only one intercept exists, use it and another point to draw the line.



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26. Find the slope of the line passing through the pair of points or state that the slope is undefined. Then indicate whether the line through the points rises, falls, is horizontal, or is vertical.

$(-5, 1)$  and  $(6, 5)$

---

Select the correct choice below and, if necessary, fill in the answer box within your choice.

- A. The slope is . (Simplify your answer.)  
 B. The slope is undefined.

Indicate whether the line through the points rises, falls, is horizontal, or is vertical.

- A. The line falls from left to right.  
 B. The line rises from left to right.  
 C. The line is vertical.  
 D. The line is horizontal.
-

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- 27.
- a. Rewrite the given equation in slope-intercept form by solving for  $y$ .
  - b. Give the slope and  $y$ -intercept.
  - c. Use the slope and  $y$ -intercept to graph the linear function.

$$3x + y = 6$$

a. The slope-intercept form of the equation is .  
(Type an equation. Use integers or fractions for any numbers in the expression.)

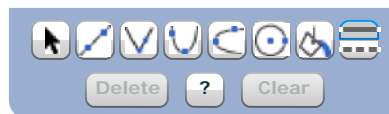
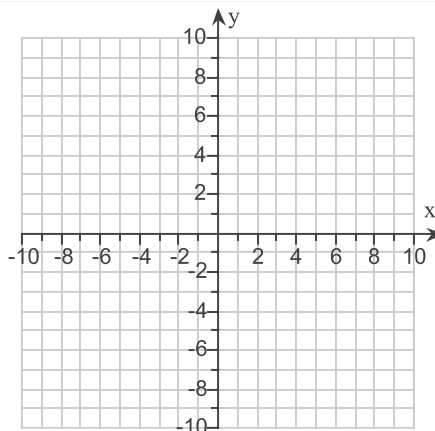
b. Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The slope is .  
(Simplify your answer. Type an integer or a fraction.)
- B. The slope is undefined.

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The  $y$ -intercept is .  
(Simplify your answer. Type an integer or a fraction.)
- B. There is no  $y$ -intercept.

c. Use the graphing tool to graph the equation. Use the slope and  $y$ -intercept when drawing the line.



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28. Solve the system by graphing.

$$y = x + 8$$

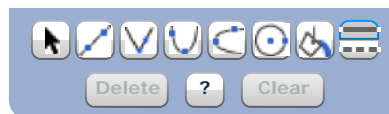
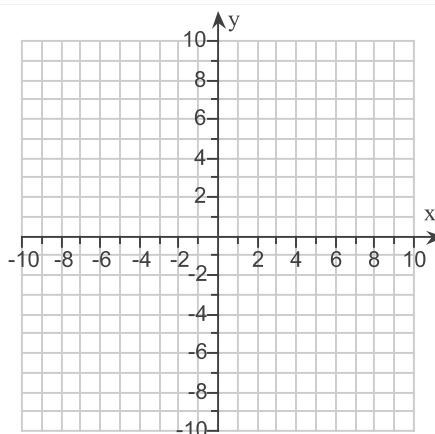
$$y = -x + 4$$

Use the graphing tool to graph the system.



Select the correct choice below and, if necessary, fill in the answer box within your choice.

- A. The solution set is  $\{\square\}$ .  
(Type an ordered pair.)
- B. There are infinitely many solutions. The solution set is  $\{(x,y) \mid \square\}$ .  
(Type an equation.)
- C. There is no solution.



29. Solve the system by the method of your choice.

$$x = -6 + 3y$$

$$x - 3y = -5$$

Select the correct choice below and, if necessary, fill in the answer box within your choice.

- A. The solution set is  $\{\square\}$ . (Type an ordered pair.)
- B. There are infinitely many solutions. The solution set is  $\{(x,y) \mid \square\}$ .  
(Simplify your answer. Type an equation.)
- C. There is no solution. The solution set is  $\emptyset$ .

30. Solve the system by the method of your choice.

$$\begin{cases} y = -2x - 6 \\ -6x - 18 = 3y \end{cases}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The solution set is  $\{\square\}$ . (Type an ordered pair.)
- B. There are infinitely many solutions. The solution set is  $\{(x,y) \mid \square\}$ .  
(Simplify your answer. Type an equation.)
- C. There is no solution. The solution set is  $\emptyset$ .

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31. Solve by the method of your choice.

$$7x - 2y = 22$$

$$3x + y = 15$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The solution set is  $\{\square\}$ . (Type an ordered pair.)
- B. There are infinitely many solutions. The solution set is  $\{(x,y)|\square\}$ .  
(Simplify your answer. Type an equation.)
- C. There is no solution. The solution set is  $\emptyset$ .

32. A company that manufactures small canoes has a fixed cost of \$18,000. It costs \$80 to produce each canoe. The selling price is \$320 per canoe. (In solving this exercise, let  $x$  represent the number of canoes produced and sold.)

a. Write the cost function.

$$C(x) = \square \text{ (Type an expression using } x \text{ as the variable.)}$$

b. Write the revenue function.

$$R(x) = \square \text{ (Type an expression using } x \text{ as the variable.)}$$

c. Determine the break-even point.

$$\square \text{ (Type an ordered pair. Do not use commas in large numbers.)}$$

This means that when the company produces and sells the break-even number of canoes

- A. there is less money coming in than going out.
- B. the money coming in equals the money going out.
- C. there is more money coming in than going out.
- D. there is not enough information.

33. The principal  $P$  is borrowed at a simple interest rate  $r$  for a period of time  $t$ . Find the simple interest owed for the use of the money. Assume 360 days in a year.

$$P = \$7000, r = 4\%, t = 1 \text{ year}$$

$$\$ \square$$

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34. The principal  $P$  is borrowed at a simple interest rate  $r$  for a period of time  $t$ . Find the simple interest owed for the use of the money. Assume there are 360 days in a year and round answers to the nearest cent.

$$P = \$6000, r = 8.5\%, t = 18 \text{ months}$$

\$  (Round to the nearest cent.)

35. Determine the present value  $P$  you must invest to have the future value  $A$  at simple interest rate  $r$  after time  $t$ .

$$A = \$5500, r = 4.0\%, t = 5 \text{ years}$$

\$  (Round up to the nearest cent.)

36. In order to start a small business, a student takes out a simple interest loan for \$3000.00 for 6 months at a rate of 6.75%.

- a. How much interest must the student pay?  
b. Find the future value of the loan.

a. The amount of interest is \$ .  
(Round to the nearest cent.)

b. The future value is \$ .  
(Round to the nearest cent.)

37. The principal represents an amount of money deposited in a savings account subject to compound interest at the given rate.

| Principal | Rate | Compounded | Time    |
|-----------|------|------------|---------|
| \$9000    | 4%   | annually   | 2 years |

- A. Find how much money there will be in the account after the given number of years.  
B. Find the interest earned.

A. The amount of money in the account after 2 years is \$ .  
(Round to the nearest hundredth as needed.)

B. The amount of interest earned is \$ .  
(Round to the nearest hundredth as needed.)

38. How much money should be deposited today in an account that earns 6% compounded semiannually so that it will accumulate to \$10,000 in three years?

The amount of money that should be deposited is \$ .  
(Round up to the nearest cent.)

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39.

|                         |                                |
|-------------------------|--------------------------------|
| <b>Periodic Deposit</b> | \$6000 at the end of each year |
| <b>Rate</b>             | 5% compounded annually         |
| <b>Time</b>             | 20 years                       |

- a. Use the following formula to find the value of the annuity.

$$A = \frac{P[(1+r)^t - 1]}{r}$$

- b. Find the interest.

a. After 20 years, you will have approximately \$ . (Do not round until the final answer. Then round to the nearest dollar as needed. Do not include the \$ symbol in your answer.)

b. The interest is approximately \$ . (Use the answer from part a to find this answer. Round to the nearest dollar as needed. Do not include the \$ symbol in your answer.)

40.

|                         |                              |
|-------------------------|------------------------------|
| <b>Periodic Deposit</b> | \$? at the end of each month |
| <b>Rate</b>             | 4.25% compounded monthly     |
| <b>Time</b>             | 20 years                     |
| <b>Financial Goal</b>   | \$9,000,000                  |

- a. Use the following formula to determine the periodic deposit.

$$P = \frac{A\left(\frac{r}{n}\right)}{\left[\left(1 + \frac{r}{n}\right)^{nt} - 1\right]}$$

- b. How much of the financial goal comes from deposits and how much comes from interest?

a. In order to have \$9,000,000 in 20 years, \$  should be deposited each month. (Do not round until the final answer. Then round up to the nearest dollar.)

b. Of the \$9,000,000, \$  comes from deposits and \$  comes from interest. (Use the answer from part a to find this answer. Round to the nearest dollar as needed.)

41.

How much should you deposit at the end of each month into an investment account that pays 8.5% compounded monthly to have \$2 million when you retire in 35 years? How much of the \$2 million comes from interest? Use one of the formulas below.

$$A = \frac{P\left[\left(1 + \frac{r}{n}\right)^{nt} - 1\right]}{\frac{r}{n}}$$

$$P = \frac{A\left(\frac{r}{n}\right)}{\left[\left(1 + \frac{r}{n}\right)^{nt} - 1\right]}$$

In order to have \$2 million in 35 years, you should deposit \$  each month. (Do not round until the final answer. Then round up to the nearest dollar.)

\$  of the \$2 million comes from interest. (Use the answer from part a to find this answer. Round to the nearest dollar as needed.)

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42. An ice cream store sells 5 drinks, in 4 sizes, and 5 flavors. In how many ways can a customer order a drink?

There are  ways that the customer can order a drink.

43. A person can order a new car with a choice of 15 possible colors, with or without air conditioning, with or without automatic transmission, with or without power windows, and with or without a CD player. In how many different ways can a new car be ordered with regard to these options?

There are  different ways that a new car can be ordered.

44. In a race in which eleven automobiles are entered and there are no ties, in how many ways can the first three finishers come in?

ways

45. Use the formula for  ${}_nC_r$  to evaluate the given expression.

$${}_9C_4$$

${}_9C_4 =$   (Type an integer or a simplified fraction.)

46. Of 10 possible books, you plan to take 5 with you on vacation. How many different collections of 5 books can you take?

You can take  different collections of 5 books on vacation with you.

47. In a race in which eight automobiles are entered and there are no ties, in how many ways can the first three finishers come in?

ways

48. A fair coin is tossed two times in succession. The set of equally likely outcomes is {HH, HT, TH, TT}. Find the probability of getting exactly one head.

The probability of getting one head is .

(Type an integer or a simplified fraction.)



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49. A single die is rolled twice. The 36 equally-likely outcomes are shown to the right.

Find the probability of getting first an even number and second an odd number.

|            | Second Roll |                                     |  |  |  |  |
|------------|-------------|-------------------------------------|--|--|--|--|
|            |             |                                     |  |  |  |  |
| First Roll |             | (1,1) (1,2) (1,3) (1,4) (1,5) (1,6) |  |  |  |  |
|            |             | (2,1) (2,2) (2,3) (2,4) (2,5) (2,6) |  |  |  |  |
|            |             | (3,1) (3,2) (3,3) (3,4) (3,5) (3,6) |  |  |  |  |
|            |             | (4,1) (4,2) (4,3) (4,4) (4,5) (4,6) |  |  |  |  |
|            |             | (5,1) (5,2) (5,3) (5,4) (5,5) (5,6) |  |  |  |  |
|            |             | (6,1) (6,2) (6,3) (6,4) (6,5) (6,6) |  |  |  |  |

The probability of getting first an even number and second an odd number is .  
(Type an integer or a simplified fraction.)

50. A single die is rolled twice. The 36 equally-likely outcomes are shown to the right.

Find the probability of getting two numbers whose sum is 2.

|            | Second Roll |                                     |  |  |  |  |
|------------|-------------|-------------------------------------|--|--|--|--|
|            |             |                                     |  |  |  |  |
| First Roll |             | (1,1) (1,2) (1,3) (1,4) (1,5) (1,6) |  |  |  |  |
|            |             | (2,1) (2,2) (2,3) (2,4) (2,5) (2,6) |  |  |  |  |
|            |             | (3,1) (3,2) (3,3) (3,4) (3,5) (3,6) |  |  |  |  |
|            |             | (4,1) (4,2) (4,3) (4,4) (4,5) (4,6) |  |  |  |  |
|            |             | (5,1) (5,2) (5,3) (5,4) (5,5) (5,6) |  |  |  |  |
|            |             | (6,1) (6,2) (6,3) (6,4) (6,5) (6,6) |  |  |  |  |

The probability of getting two numbers whose sum is 2 is .  
(Type an integer or a simplified fraction.)

51. This problem involves empirical probability. The table shows the breakdown of 104 thousand single parents on active duty in the U.S. military in a certain year. All numbers are in thousands and rounded to the nearest thousand. Use the data in the table to find the probability that a randomly selected single parent in the U.S. military is female.

|        | Army | Navy | Marine Corps | Air Force | Total |
|--------|------|------|--------------|-----------|-------|
| Male   | 28   | 28   | 6            | 16        | 78    |
| Female | 11   | 8    | 1            | 6         | 26    |
| Total  | 39   | 36   | 7            | 22        | 104   |

The probability that a randomly selected single parent in the U.S. military is female is . (Type an integer or decimal rounded to the nearest hundredth as needed.)

52. In one lottery, a player wins the jackpot by matching all five numbers drawn from white balls (1 through 44) and matching the number on the gold ball (1 through 35). What is the probability of winning the jackpot?

The probability of winning the jackpot is .  
(Type an integer or a simplified fraction.)

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53. The table shows the distribution, by age, of a random sample of 3680 moviegoers ages 12-74. If one moviegoer is randomly selected from this population, find the probability, expressed as a simplified fraction, that the moviegoer's age is less than 65.

**Age Distribution of Moviegoers**

| Ages  | Number |
|-------|--------|
| 12-24 | 1290   |
| 25-44 | 1030   |
| 45-64 | 700    |
| 65-74 | 660    |

The probability is .

(Type an integer or a simplified fraction.)

54. One card is randomly selected from a deck of cards. Find the odds in favor of drawing a spade.

The odds in favor of drawing a spade are :. (Simplify your answers.)

55. A random sample of 30 college students is selected. Each student is asked how much time he or she spent on homework during the previous week. The following times (in hours) are obtained.

21, 15, 24, 23, 25, 19, 24, 22, 15, 15, 25, 16, 24, 17, 23, 18, 22, 19, 24,  
24, 19, 21, 15, 17, 18, 25, 15, 18, 16, 17

Construct a frequency distribution for the data.

Type the frequency for each data value.

| Hours Studied | Freq.                |
|---------------|----------------------|
| 15            | <input type="text"/> |
| 16            | <input type="text"/> |
| 17            | <input type="text"/> |
| 18            | <input type="text"/> |
| 19            | <input type="text"/> |
| 20            | <input type="text"/> |
| 21            | <input type="text"/> |
| 22            | <input type="text"/> |
| 23            | <input type="text"/> |
| 24            | <input type="text"/> |
| 25            | <input type="text"/> |

56. Find the mean for the following group of data items.

6, 9, 8, 2, 4, 7, 5, 6

The mean is . (Round to 3 decimal places as needed.)

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57. Find the mean for the following group of data items.

70, 67, 69, 62, 67, 73

The mean is . (Round to 3 decimal places as needed.)

58. Find the median for the following group of data items.

31, 28, 27, 26, 32, 29, 25, 27

The median is . (Round to the nearest tenth as needed.)

59. Find the mode(s) for the following group of data items.

6.1, 8.3, 9.5, 7.2, 8.7, 8.7, 7.7, 9.2, 8.1, 7, 7

Select the correct choice below and, if necessary, fill in the answer box within your choice.

A. The mode(s) is/are . (Use a comma to separate answers as needed.)

B. There is no mode.

60. Suppose a certain city's average monthly temperatures are 40, 56, 61, 76, 73, 80, 81, 92, 97, 90, 75, and 55 degrees.

a. Find the range.

b. Find the sample standard deviation.

a. The range is . (Simplify your answer.)

b. The sample standard deviation is .  
(Round to one decimal place as needed.)

61. Find the standard deviation for the group of data items.

11, 12, 13, 14, 15

The standard deviation is . (Round to two decimal places as needed.)

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62. Compute the mean, range, and standard deviation for the data items in each of the three samples. Then describe one way in which the samples are alike and one way in which they are different.

Sample A: 24, 26, 28, 30, 32, 34, 36

Sample B: 24, 25, 26, 30, 34, 35, 36

Sample C: 24, 24, 24, 30, 36, 36, 36

---

|          | Mean                 | Range                | Standard Deviation  |
|----------|----------------------|----------------------|---|
| Sample A | <input type="text"/> | <input type="text"/> | <input type="text"/> (Round to two decimal places as needed.) |

|          | Mean                 | Range                | Standard Deviation  |
|----------|----------------------|----------------------|---|
| Sample B | <input type="text"/> | <input type="text"/> | <input type="text"/> (Round to two decimal places as needed.) |

|          | Mean                 | Range                | Standard Deviation  |
|----------|----------------------|----------------------|---|
| Sample C | <input type="text"/> | <input type="text"/> | <input type="text"/> (Round to two decimal places as needed.) |

In which of the following ways are the samples alike?

- Standard Deviation
- Mean
- Range
- Mean and Range

In which of the following ways are the samples different?

- Standard Deviation
  - Mean and Standard Deviation
  - Mean and Range
  - Range and Standard Deviation
-

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1. 19

---

2. 15,625

---

3. 6  
D  
2012

---

4. 100

---

5. C

---

6. False

---

7. 5

---

8.  $\subseteq$

---

9. only  $\subseteq$

---

10. 16  
15

---

11. A, 1,2

---

12. A, 1,4,6,8,3,10

---

13. 7,8,10

---

14. 1,5,9,11

---

15. 17,101

---

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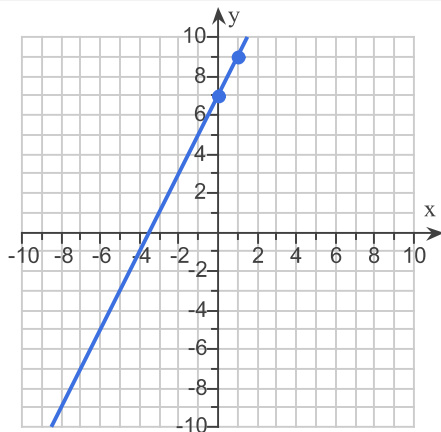
16. C

17. 36

18. 35

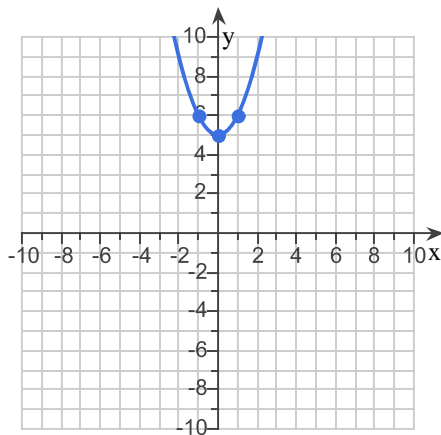
19. 8  
9  
28  
27  
32  
64

20.



21.

9  
6  
5  
6  
9



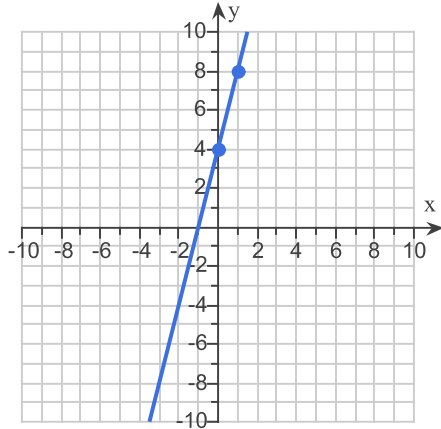
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Date: \_\_\_\_\_  
Time: \_\_\_\_\_

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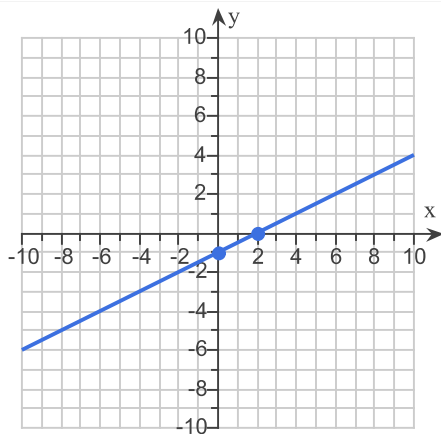
22. Yes

23.  $y = 4x + 4$



24. (28,7)  
28  
yards,  
7  
feet.

25.



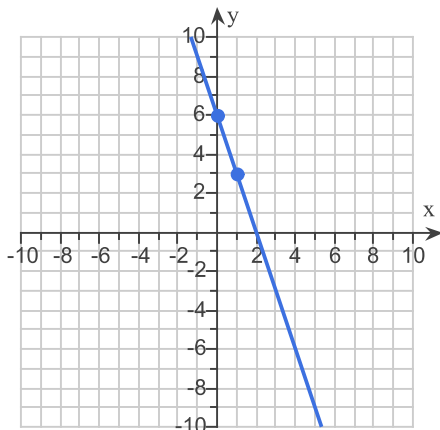
26. A,  $\frac{4}{11}$   
B

Student: \_\_\_\_\_  
Date: \_\_\_\_\_  
Time: \_\_\_\_\_

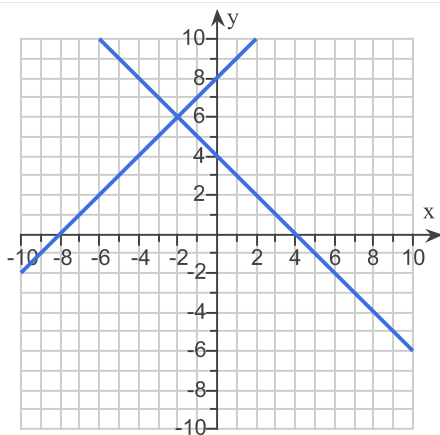
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27.  $y = -3x + 6$   
A, -3  
A, 6



28.



A, (-2, 6)

29. C

30. B,  $y = -2x - 6$

31. A, (4, 3)

32.  $18,000 + 80x$   
 $320x$   
(75, 24000)  
B

33. 280



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34. 765.00

35. 4583.34

36. 101.25  
3101.25

37. 9734.40  
734.40

38. 8374.85

39. 198,396  
78,396

40. 23,857  
5,725,680  
3,274,320

41. 771  
1,676,180

42. 100

43. 240

44. 990

45. 126

46. 252

47. 336

48.  $\frac{1}{2}$

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49.  $\frac{1}{4}$

50.  $\frac{1}{36}$

51. 0.25

52.  $\frac{1}{38,010,280}$

53.  $\frac{151}{184}$

54.  $\frac{1}{3}$

55. 5  
2  
3  
3  
3  
0  
2  
2  
2  
5  
3

56. 5.875

57. 68

58. 27.5

59. A, 7,8.7

60. 57  
17.1

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61. 1.58

---

62. 30  
12  
4.32  
30  
12  
5.07  
30  
12  
6  
Mean and Range  
Standard Deviation

---