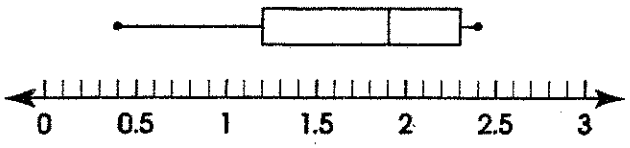
2. The box-and-whisker plot below describes the weights of a sample of 100 chickens.

Distribution of Weights of Chickens (lb)



What statement can be made about the data, using the graph alone?

A. The range of the weights is 3 lb.

B. The median weight is less than 2 lb.

C. Twenty-five percent of the chickens weigh less than 1 lb.

D. Fifty percent of the chickens weigh more than 2 lb.

3. Which equation is equivalent to $3(2x - 5) = 4(x + 3)$?

A. $2x = -27$

B. $2x = 27$

C. $10x = -27$

D. $10x = -3$

5. Three different opinion polls show different results for the proportion of voters expected to vote for Candidate A in an election for mayor.

Poll 1: Nine of every 20 voters are expected to vote for Candidate A. $\frac{9}{20} = .45$

Poll 2: The percentage of voters expected to vote for Candidate A is 52%. .52

Poll 3: There are 130,000 people expected to vote, and of these, 55,000 are expected to vote for Candidate A. .42

In your **Answer Document**, determine which of these polls shows the greatest favorable result for Candidate A. Show your work or provide an explanation for your answer.

For question 5, respond completely in your **Answer Document**. (2 points)

6. A set of data contains 10 negative numbers and 4 positive numbers. Which one of these statements must be true?

A. The mean is a negative number.

B. The median is a negative number.

C. The mode is a negative number.

D. The range is a negative number.

10. Triangle DEF has vertices with coordinates D(−2, 1), E(1, 5) and F(2, 3).

In your **Answer Document**, draw and label triangle DEF on the grid provided.

Draw the triangle D′E′F′ by translating each vertex of triangle DEF three units to the right and two units down. Appropriately label triangle D′E′F′.

Draw the triangle D″E″F″ by translating each vertex of triangle D′E′F′ two units to the left and seven units up. Appropriately label triangle D″E″F″.

Describe the movements necessary to perform a single translation of each vertex from triangle DEF to triangle D″E″F″.

For question 10, respond completely in your **Answer Document**. (4 points)

11. Which number is irrational?

A. -2

B. $\sqrt{8}$

C. 3

D. $\frac{22}{8}$

12. Julie does not want to spend more than $300 on ice skating. Her skates will cost $42, her lessons will cost a total of $56, and the practice time will cost $7.50 per hour.

Which inequality should Julie use to determine the maximum number of hours, h, she can practice without spending more than $300?

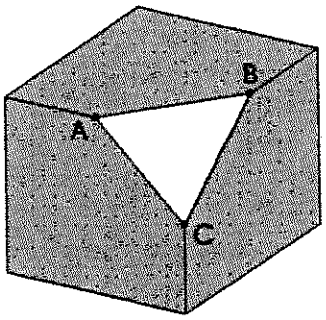
A. $56 + 7.50h < 300$

B. $42 + 7.50h < 300$

C. $7.50h - 42 - 56 \leq 300$

D. $42 + 56 + 7.50h \leq 300$

13. Daniel cut the corner off a cube as shown in the diagram below.



Points A, B and C are the midpoints of the edges of the cube. What type of three-dimensional figure has been cut off?

A. cone

B. cube

C. triangular prism

D. triangular pyramid

14. Pippi calculates her total earnings for the month with the equation

$$E = 15m + 5b,$$

where E is the total number of dollars she earns, m is the number of lawns she mows, and b is the number of hours she baby-sits.

If Pippi mows 6 lawns, how many hours must she baby-sit to earn a total of $200?

A. 20

B. 22

C. 40

D. 45

15. The population density of a state, in people per square mile, is found by dividing the population of the state by its area in square miles. Florida has an area of 53,936 square miles. In 1998, Florida had a population of 14,915,980 and a population density of 276.5 people per square mile.

In your **Answer Document**, describe the conditions under which a different state could have a smaller population than Florida but have a greater population density.

For question 15, respond completely in your **Answer Document**. (2 points)

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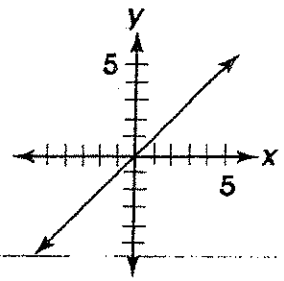
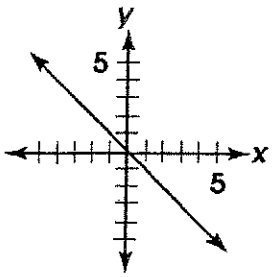
27. Which of these represents the graph of the equation $-3x + 4y = -12$?

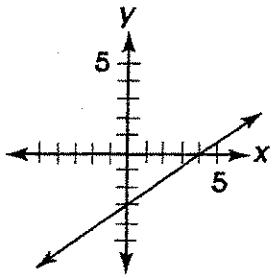
A.



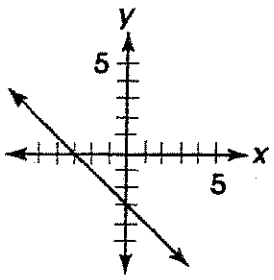
B.



C.



D.



28. Alanis is moving and needs to pack two mirrors. The larger mirror fits in a box that is 18 inches wide by 20 inches long. Her smaller mirror is similar in proportion to the larger mirror. Alanis determines that the width of the smaller box needs to be a minimum of 9 inches.

What should be the minimum length of the box to hold the smaller mirror?

A. 2 inches

B. 6 inches

C. 9 inches

D. 10 inches

29. The table shows the number of people who speak each of the six most common languages of the world.

Number of People (In millions)

Mandarin	English	Hindi	Spanish	Russian	Arabic
900	430	320	310	280	185

Which type of graph is appropriate to display the data in the table?

A. bar graph

B. box-and-whisker plot

C. line graph

D. scatterplot

31. Aaron wants the mean of his 5 geometry test scores to be at least 90%. His scores on the first four tests are 85%, 83%, 96% and 91%. What is the minimum score Aaron can earn on the fifth test to meet his goal?

A. 89%

B. 90%

C. 95%

D. 100%

32. Cameron had $500 in savings on January 1. Quinn had $800 in savings on January 1. Cameron deposits $20 per week into his savings account. Quinn withdraws $15 per week from his savings account.

In your **Answer Document**, write two equations: one for the amount of money in Cameron's savings x weeks after January 1st, and one for the amount of money in Quinn's savings x weeks after January 1st.

Determine the number of weeks until Cameron will have more money in his savings account than Quinn. Show your work or provide an explanation for your answer.

For question 32, respond completely in your **Answer Document**. (2 points)

35. The table below shows the number of fish caught each day last week.

Number of Fish Caught Each Day

Day	Number of Fish Caught
Monday	4
Tuesday	0
Wednesday	3
Thursday	2
Friday	0
Saturday	0
Sunday	5

If one day of that week is chosen at random, what is the probability that a minimum of one fish was caught that day?

A. $\frac{3}{7}$

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

C. $\frac{4}{7}$

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

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41. Which expression is **not** equivalent to 7?

A. $|-7|$

B. $\sqrt{49}$

C. 7^1

D. $\frac{7}{49}$

42. A DVD player is on sale for 15% off the regular price of $135. After the price reduction, a 5% sales tax is added.

How much will a customer pay?

A. $141.75

B. $120.49

C. $114.75

D. $109.01