

# YES 2 MATH

## KNOWLEDGE IS POWER!

Welcome 2 First Saturday, January 7, 2006

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*Fill in all the blanks. Please print, using block letters.*

Your Name: \_\_\_\_\_ Age: \_\_\_\_\_

Your Address \_\_\_\_\_ Phone No: \_\_\_\_\_

Your School \_\_\_\_\_

Your Grade \_\_\_\_\_ Your Teacher's Name \_\_\_\_\_

Underline the statement that fits you best.

I like math.

I don't like math very much.

I like math a lot.

I don't like math at all.

Where do you use a computer?

Home    School    Library    Community Center    Other

If other is selected please explain

\_\_\_\_\_

I am:    Female    Male

**GOOD LUCK**

Yes 2 Math! Level 2 / January 2006

Site \_\_\_\_\_

1. Mrs. Hawkins purchased all the items on the receipt below for her 6<sup>th</sup> grade class. She was charged \$16.02. Figure out how much she should have paid **AND** how much she was overcharged. Show your work and your answer in the box next to the receipt.

Band aids	\$2.39
Masking Tape	\$1.25
Markers	\$2.56
Crayons	\$3.11
Hand Soap	\$1.31
Toilet Paper	\$1.24
Construction Paper	\$2.29
Toilet Paper	\$1.24

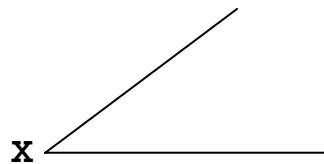


2. Your mother has 215 CDs in her collection. Your cousin has 16 more CDs than your mother. Which of the following equations shows how many CDs your cousin has?

- A.  $215 - n = 16$
- B.  $n + 16 = 215$
- C.  $215 - 16 = n$
- D.  $215 + 16 = n$

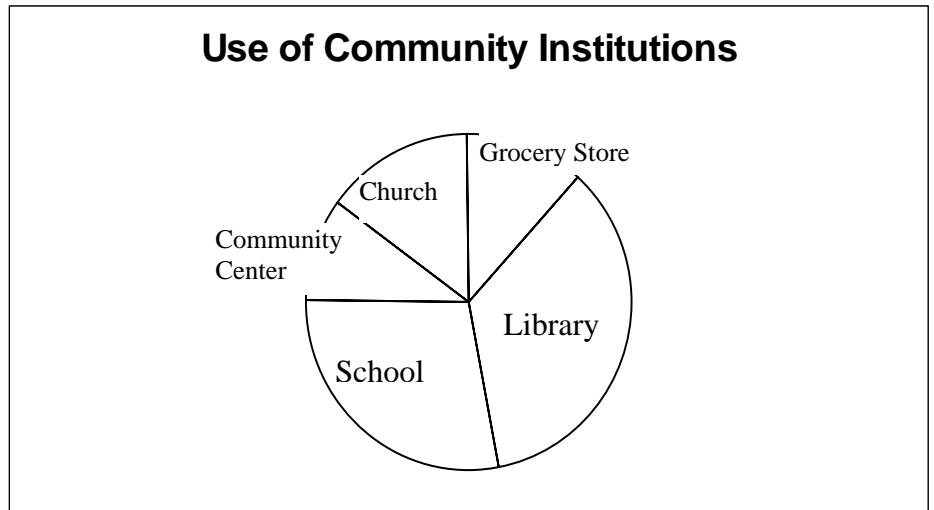
3. The angle shown at **x** would be classified as:

- A. an acute angle
- B. an obtuse angle
- C. a right angle
- D. a straight angle



4. You and your friends are going to start a babysitting service after school. Your plan is to distribute fliers advertising your service in locations around your community. The pie graph below shows how many people visit those places. Estimate where your fliers would be seen by the most people?

- A. Church
- B. School
- C. Library
- D. Community center



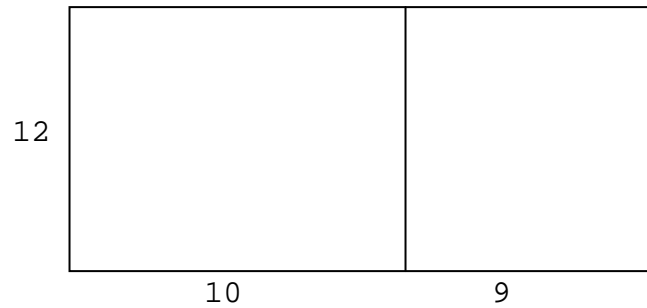
5. During a rainstorm, the water in Swan Creek rose 1.5 inches. The next day another rainstorm caused the water to rise an additional .75 inches. The water level after the two storms was 20.25 inches. What was the water level of Swan Creek before the two storms?

- A. 18 inches
- B. 19 inches
- C. 19.5 inches
- D. 20 inches

6. Mr. Johnson stopped at a gas station to get gas for his car. Gasoline costs \$1.19 per gallon. What is the largest amount of gallons Mr. Johnson can purchase with a \$10.00 bill and get some change back?

- A. 6 gallons
- B. 8 gallons
- C. 9 gallons
- D. 10 gallons

7. Which expression uses the distributive property to find the total area of the rectangles below?



- A.  $12 \times (10 \times 9)$
- B.  $(12 \times 10) + (12 \times 9)$
- C.  $12 + (10 \times 9)$
- D.  $12 \times 10 \times 9$

8. Your friend is talking to you over the phone and she is describing the shape of an object that she is drawing for her art class. She describes a three dimensional figure with a square base and four sides shaped as triangles that meet at a point. What kind of shape is your friend describing?

- A. Cylinder
- B. Square prism
- C. Triangle
- D. Pyramid

9. Which set of fractions below are equal to each other?

- A.  $4/12$  and  $12/48$
- B.  $3/36$  and  $9/72$
- C.  $9/54$  and  $3/18$
- D.  $15/45$  and  $2/3$

10. Your school is building a new playground with a rectangular shaped sandbox. The sandbox measures 5m long, 2m wide, and .5 meters deep. If sand costs \$7.50 per cubic meter, how much will it cost to fill the sandbox? Use pictures, words, or numbers to explain your answer in the space below.

11. Which two packages of crackers below have equivalent ratios of carbohydrates and fat?

<b>Wheatables</b>	
Carbohydrates	18 g
Fats	6 g
Cholesterol	2 mg

<b>Crispies</b>	
Carbohydrates	10 g
Fats	6 g
Cholesterol	1 mg

<b>Nibblers</b>	
Carbohydrates	9 g
Fats	3 g
Cholesterol	1 mg

<b>Zoomers</b>	
Carbohydrates	6 g
Fats	3 g
Cholesterol	2 mg

- A. Wheatables and Zoomers
- B. Crispies and Nibblers
- C. Wheatables and Nibblers
- D. Wheatables and Crispies

12. Which sequence below used a calculator with algebraic logic?

A. 

28
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+
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21
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7
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=
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7
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B. 

35
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-
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15
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X
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3
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=
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60
----

C. 

48
----

+
---

12
----

X
---

10
----

=
---

600
-----

D. 

120
-----

-
---

54
----

÷
---

18
----

=
---

117
-----

13. Which equation states that two less than six times some numbers is equal to one hundred?

A.  $2 - 6a = 100$

B.  $6a - 2 = 100$

C.  $2 + 6a = 100$

D.  $2a - 6 = 100$

14. If  $n = 125$  and  $x = 55$ , what would be the value of the expression

$$x + (n - x)$$

A. 55

B. 70

C. 125

D. 180

15. Mr. Smith wants to buy a computer for her kids. He has \$159 in his savings account and \$305 in his checking account. Using front end estimation, show how much more Mr. Smith needs in order to purchase a computer that will cost \$935. Show your work.

16. Chris wants to buy a scooter. At Clark's Bike Shop he found a scooter that regularly costs \$120.00 on sale for 15% off. With a coupon from the newspaper, he can get an additional \$20 off of the sales price. At Jim's Bike Shop, the same scooter costs \$110.00 but was on sale this weekend for 20% off. Which store is giving the cheapest price for the scooter? Show your work and your answer in the space below.

17. The parents of Warren Elementary students are selling raffle tickets for a chance to win a grand prize of \$500. Brianna bought 5 raffle tickets. If 1,000 tickets were sold, what is the probability that Brianna will win?

- A. 1 out of 5
- B. 1 out of 500
- C. 1 out of 1,000
- D. 5 out of 1,000

18. Candice bought the following items at the store to make a salad for a party she was attending:

- 2 cucumbers ...\$1.50 each
- 2 heads of lettuce...\$.79 each
- 2 onions...\$1.09 each
- 1 ½ pounds of tomatoes...\$1.00 per pound

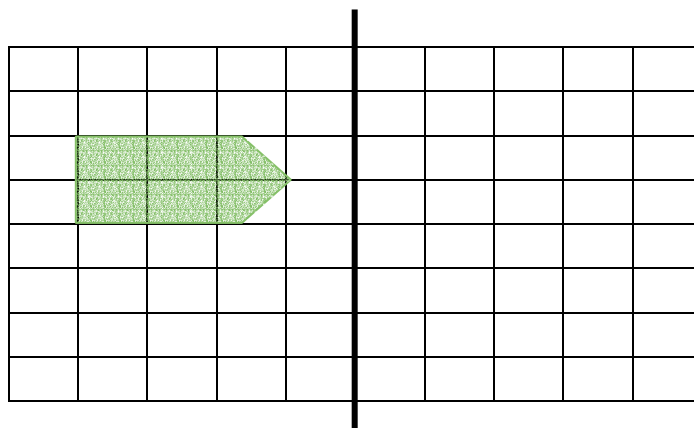
How much was the total cost of Candice's salad?

- A. \$6.37
- B. \$6.90
- C. \$7.08
- D. \$8.26

19. A computer lab took a survey at the end of the month to find out what computer programs people used the most. Out of 34 computer programs, 15 had not been used. Which equation could be used to find how many computer programs were used that month?

- A.  $34 - 15 = n$
- B.  $34 + 15 = n$
- C.  $n - 34 = 15$
- D.  $15n = 34$

20. Draw a *translation* of the figure in the grid on the right side of the black line.



21. To raise money for the school library, the 6<sup>th</sup> grade classes at King school were asked to sell 100 magazine subscriptions altogether. The following table shows what fraction of the 100 subscriptions each classroom sold.

6 <sup>th</sup> grade class	Fraction of 100 subscriptions
Mr. Morris	$\frac{1}{2}$
Mrs. Lucas	$\frac{4}{8}$
Ms. Fish	$\frac{2}{3}$
Ms. Hall	$\frac{3}{4}$

**Which two classes sold the same number of subscriptions?**

- A. Mrs. Lucas' and Miss Hall's classrooms  
 B. Mr. Morris' and Ms. Fish's classrooms  
 C. Mr. Morris' and Mrs. Lucas' classrooms  
 D. Ms. Fish's and Miss Hall's classrooms
22. The teachers at Morgan elementary school were asked how much money they were able to collect in donations for the field trips they were taking in the spring. Below are the responses that they gave. What is the mode of these amounts?

Mrs. Young	\$50.00
Miss Bing	\$42.00
Mrs. Braggs	\$50.00
Mr. Porter	\$23.00
Ms. Hamilton	\$50.00

Mr. Gold	\$50.00
Ms. Wells	\$65.00
Mrs. Billings	\$98.00
Mr. Fibbs	\$78.00
Ms. Mayes	\$32.00

- A. \$50.00  
 B. \$53.80  
 C. \$98.00  
 D. \$538.00

23. A fence company plans to donate a fence for the public pool in your neighborhood. They plan to install the fencing so that there will be a 2m space between each side of the pool and the fence. How many meters of fencing will be needed if the pool is 15m long and 12m wide? Show your work and answer in the space below.

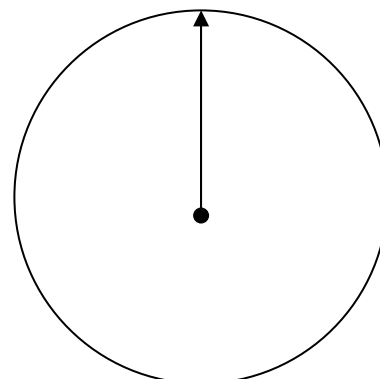
24. Janelle places her basketball trophy on top of her dresser. The trophy is 1'4" tall and the dresser is 3'8" tall. What is the total height of the dresser and the trophy in inches. Show your work.

25. Rena is making a sign. Her teacher has told her to make the letters on the sign greater than  $1\frac{1}{2}$  inches but less than or equal to  $1\frac{7}{8}$  inches. What measurement below would be the best to use?

- A.  $1\frac{3}{8}$
- B.  $1\frac{15}{16}$
- C.  $1\frac{3}{4}$
- D.  $1\frac{1}{4}$

26. The figure below is a radar used to detect different weather patterns like tornadoes. The line coming from the center is called a ray. If the ray travels completely around the circle what would be the measurement of the rotation?

- A.  $90^{\circ}$
- B.  $180^{\circ}$
- C.  $270^{\circ}$
- D.  $360^{\circ}$



27. Gabriella was creating a banner to hang outside her classroom. The area of the banner was 24 inches. She realized she would need to double the area of the banner. What would the measurements of the length and width be in order to double the area?

- A.  $2 \times 5$
- B.  $6 \times 8$
- C.  $12 \times 12$
- D.  $12 \times 16$

28. Alex got a job for the summer mowing Mrs. Meyers lot. The lot measures 150 meters long and 75 meters wide. What is the area of the lot that will be mowed?

- A. 425m
- B. 1750m
- C. 5625m
- D. 11,250m

29. Mr. Frost is in charge of the cafeteria. He asks the students to take a survey on what kind of food they would like to have served for lunch. He reads the results: Out of 148 students half of the students want to have fresh fruit as part of every lunch. The other half want fresh vegetables to be served at every meal. Of the kids who want vegetables, 56 want carrots and 18 want broccoli. How many people wanted fruit with their lunches?
- A. 18
  - B. 56
  - C. 84
  - D. 74
30. Eric wants to purchase 2 video games. There are 3 stores that Eric will shop at: Independent Video and Books, Hawkins Video Games and Quest Used and New Video Games. Independent Video is selling their videos for \$39.99 but is offering a \$15 rebate. Hawkins is selling their video games for \$49.99 but will sell a second video game for  $\frac{1}{2}$  price. Quest is selling their video games for 50% off the regular price. All the stores carry the video games that Eric wants. What additional information is needed to solve the problem?
- A. the sale price at Hawkins
  - B. the sale price at Quest
  - C. the length of the sale
  - D. the regular price at Quest
31. Everyone has responsibilities that they need to take care of in your classroom. Your job this week is to water the tomato plants that your class room is growing. The plants need 1.4 liters of water every week. How many milliliters of water do you give the plants?
- A. 200 milliliters
  - B. 280 milliliters
  - C. 1,400 milliliters
  - D. 2,000 milliliters

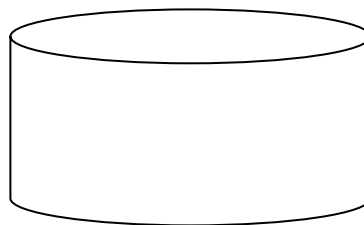
32. Students from your school are attending a dinner banquet at the University of Toledo. Everyone in attendance gets a raffle ticket. At the end of the night, one ticket will be chosen to win a home computer. If there are 345 people in attendance, what is the probability your ticket will be chosen? Show your answer in the space below.

33. A new raincoat that your grandmother plans to buy costs \$15.98. When she goes to the store she discovers that they are on sale for  $\frac{1}{3}$  off. What is the best estimate of how much she will pay for the new raincoat?

- A. \$8.00
- B. \$9.00
- C. \$10.00
- D. \$12.00

34. The building materials at a construction site need to be put away after use. The materials are put into containers according to their shape. If you were the worker responsible for placing the building materials in the right containers, what container would the shape below be placed in?

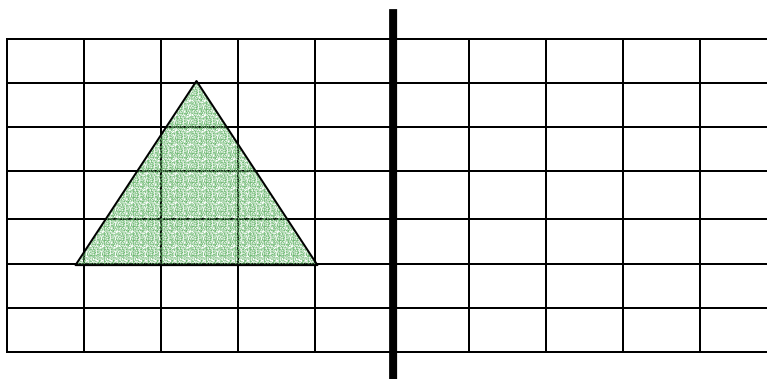
- A. Cones
- B. Prisms
- C. Pyramids
- D. Cylinders



35. Andy is painting a mural on the wall of a brick building. The picture is going to have different colored bricks. The mural will use 64 bricks in all. 18 bricks will be red, 26 will be green and 20 will be black. What fraction of the bricks are black?

- A.  $\frac{5}{16}$
- B.  $\frac{7}{13}$
- C.  $\frac{13}{32}$
- D.  $\frac{9}{32}$

36. Draw a reflection of the figure below in the grid on the right side of the black line.



37. The fruit stand in your neighborhood sells produce all year long. The chart below shows how much fruit they sell on a monthly basis. If the pattern on the table continued, how many carrots and cucumbers would need to be ordered for December?

	<b>Carrots</b>	<b>Cucumbers</b>	<b>Peppers</b>
<b>September</b>	200	800	400
<b>October</b>	100	400	300
<b>November</b>	50	200	150
<b>December</b>			

- A. 15 carrots and 50 cucumbers
- B. 25 carrots and 50 cucumbers
- C. 25 carrots and 100 cucumbers
- D. 25 carrots and 150 cucumbers

38. The chess club at your school is raising money for a competition they want to go to in Columbus. They sell t-shirts to the other kids at school to get their support and earn travel money. The t-shirts cost \$12.69 from the company, and the chess club decides to sell the shirts for \$17.85. The team orders 400 shirts, how much profit did the chess club make?

- A. \$2,064
- B. \$3,020
- C. \$5,080
- D. \$7,140

39. Which equation below represents the following sentence?

**If a number is subtracted from the quotient of thirty-six and six, the result is two.**

- A.  $36 \div 6 = n - 2$
- B.  $36 \div n - 6 = 2$
- C.  $36 \div 6 + n = 2$
- D.  $36 \div 6 - n = 2$

40. Write the following as a fraction and as a decimal in the space below:

**24 multiplication problems out of 100 math problems**