

Answer questions 1-35 on your Scantron.

Questions 1-30 will be scored for the Power Bowl event. In the event of a tie, questions 31-35 will be used as the tiebreaker.

1. Given a triangle with interior angles measuring 34° and 59° , what is the measure of the third angle?

a. 93° b. 87° c. 180° d. 267° e. NG

2. If $(n + 3)(9 - 5) = 16$, then what does n equal?

a. 1 b. 4 c. 7 d. 9 e. NG

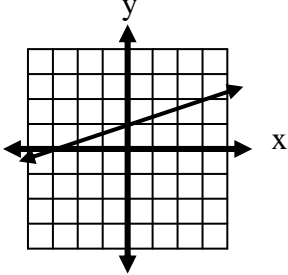
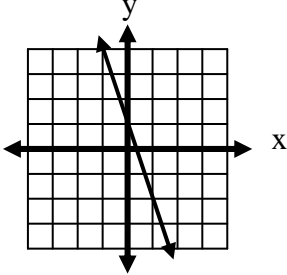
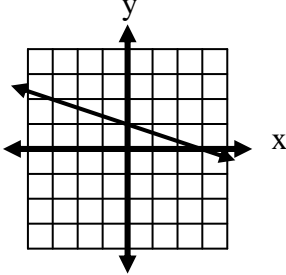
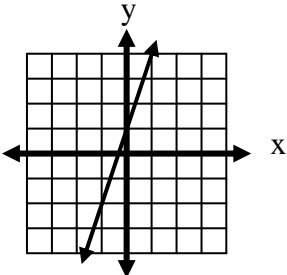
3. In the model town that the class is building, a car 15 feet long is represented by a scale model 3 inches long. If the same scale is used, a house 35 feet high would be represented by a scale model how many inches high?

a. $\frac{45}{35}$ b. 3 c. 5 d. 7 e. $\frac{35}{3}$

4. Suppose Jack had scores of 98, 86, 88, and 95 on his last four math tests. What is the minimum score he must get on the next test in order to have an average test score of 92.0?

- a. 1 b. 92 c. 93 d. 94 e. 100

5. Which best represents the graph of $y = -3x + 1$?

- a.  b.  c. 
- d.  e. NG

6. Find the product of the number of sides of an octagon and the number of vertices of a quadrilateral.

- a. 12 b. 32 c. 16 d. 2 e. NG

7. If you subtract 19 ones from 19 tens, the result is

- a. 1871 b. 342 c. 171 d. 9 e. NG

8. If $x + 12 = 24$, find the value of $x - 4$.

- a. 8 b. 12 c. 32 d. -2 e. NG

9. $4^3 \times 4^3 =$

- a. 16^9 b. 16^6 c. 4^9 d. 4^6 e. 4^3

10. In a box of 40 cookies, 24 of the cookies were round and 20 of them were made of chocolate. If 12 cookies were neither round nor made of chocolate, how many round chocolate cookies were in the box?

- a. 4 b. 8 c. 16 d. 20 e. 28

11. Which of these is in order from **least to greatest**?

a. $\frac{5}{8}, 0.75, \frac{5}{6}, \frac{11}{12}$

b. $\frac{3}{4}, \frac{5}{6}, \frac{11}{12}, 0.625$

c. $\frac{11}{12}, \frac{5}{6}, \frac{3}{4}, \frac{5}{8}$

d. $\frac{3}{4}, 0.625, \frac{11}{12}, \frac{5}{8}$

e. NG

12. What is the sum of all the one-digit positive prime numbers?

a. 15

b. 16

c. 17

d. 18

e. NG

13. The difference between the least common multiple and the greatest common divisor of the numbers 5, 10, and 35 is:

a. 1745

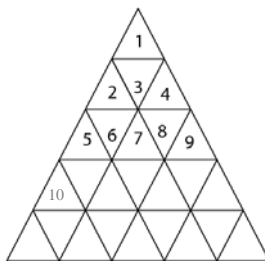
b. 35

c. 65

d. 5

e. None of these

14. If the pattern continues which row would contain the number 125?



a. 11

b. 12

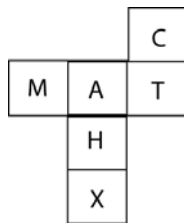
c. 13

d. 10

e. none of these

15. What is the value of $\frac{1}{1+\frac{1}{x}}$ when $x = \frac{1}{4}$?
- a. $\frac{1}{5}$ b. $\frac{4}{5}$ c. $\frac{5}{4}$ d. 4 e. 5
16. What digit is in the ten-thousandths place of 14,803.715926?
- a. 4 b. 1 c. 5 d. 9 e. 2
17. If 3 out of 5 dentists recommend sugarless gum, what percent *don't* recommend sugarless gum?
- a. 20% b. 30% c. 40% d. 60% e. 70%
18. When three different numbers from the set $\{-3, -2, -1, 4, 5\}$ are multiplied, the largest possible product is:
- a. 10 b. 20 c. 40 d. 30 e. 60

19. A piece of paper containing six joined squares labeled as shown in the diagram is folded along the edges of the squares to form a cube.



The label of the face opposite the face labeled H is:

- a. X b. M c. A d. T e. C
20. Solve.
 $5x + 3(x - 2) = -30$
- a. -4.5 b. -3 c. 3 d. 4.5 e. NG
21. What is the best buy for Xbox games?
- a. 2 for \$39 b. 3 for \$57 c. 4 for \$73 d. 6 for \$120 e. 5 for \$99

22. If I divide my age by 5, the remainder is 3. Your age is twice mine. If I divide your age by 5, the remainder will be

- a. 1 b. 2 c. 3 d. 4 e. NG

23. Sara worked 8 hours on Monday, 7 hours 30 minutes on Tuesday, 8 hours on Wednesday, 6 hours 30 minutes on Thursday, and 4 hours on Friday. She gets paid \$5.50 per hour. How much did she earn for the five days of work?

- a. \$181.50 b. \$184.80 c. \$165.00 d. \$187.00 e. NG

24. Simplify the following expression

$$\frac{35x^6}{7x^2}$$

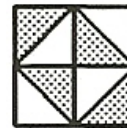
- a. $28x^3$ b. $28x^4$ c. $5x^3$ d. $5x^4$ e. NG

25. If 2 pears weigh as much as 3 peaches, and 2 peaches weigh as much as 30 grapes, then ? pears weigh as much as 90 grapes.

- a. 4 b. 6 c. 8 d. 12 e. none of these

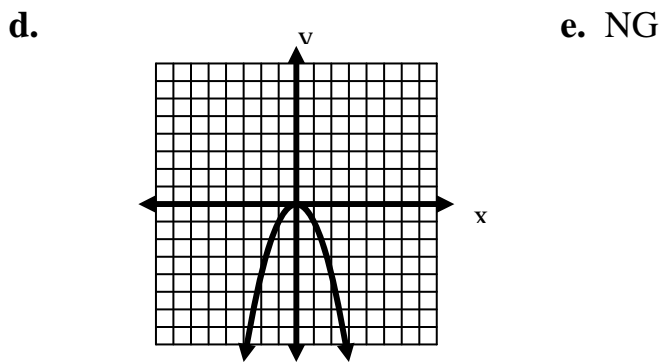
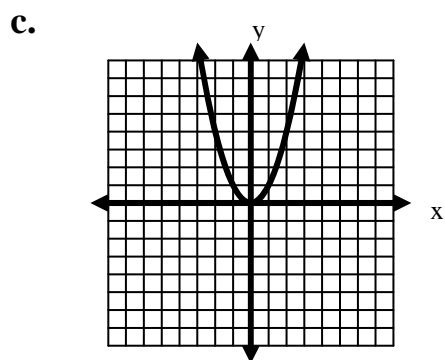
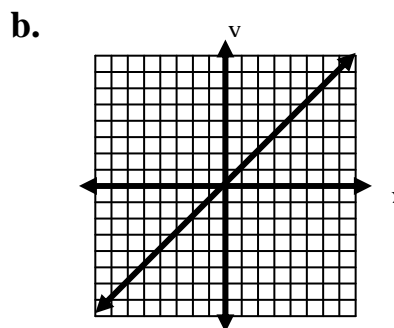
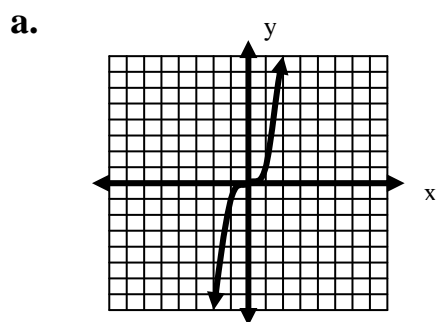
26. Which statement is **not** true?
- a. Every parallelogram is a rhombus b. Every square is rhombus
c. Every rectangle is a parallelogram d. Every square is a rectangle
e. These statements are all true
27. Of the following, which has the largest value?
- a. 7 b. $(-1)^2$ c. $(-2)^2$ d. $(-3)^2$ e. $(-3)^3$
28. If a square has a perimeter of 4 units, then its area is
- a. 1 sq. unit b. 4 sq. units c. 8 sq. units d. 16 sq. units e. NG
29. If an ape ate 1 banana every 4 hours, it ate ? bananas in 5 days.
- a. 20 b. 24 c. 30 d. 120 e. NG

30. A square with a perimeter of 32 is split into 8 identical triangles, as shown. What is the sum of the areas of the 4 shaded triangles?



- a. 4 b. 8 c. 16 d. 32 e. NG

31. Which graph shows $y = x^3$?



32. The difference between $\frac{5}{6}$ and its reciprocal is

- a. $\frac{1}{5}$ b. $\frac{1}{6}$ c. $\frac{1}{30}$ d. $\frac{11}{30}$ e. 1

33. If 10% of a number is 100, then 100% of the same number is

- a.** 10 **b.** 100 **c.** 110 **d.** 1000 **e.** NG

34. What is the value of $(2x + 5)^2$ when $x = 3$?

- a.** 11 **b.** 31 **c.** 100 **d.** 121 **e.** NG

35. What value of x makes the equation below true?

$$-5 = \frac{x}{3} + 7$$

- a.** 6 **b.** -6 **c.** -2 **d.** 2 **e.** NG