Name: _____ **Algebra Blizzard Bag #8**

Multiple Choice. Students must show work for all problems.

1.

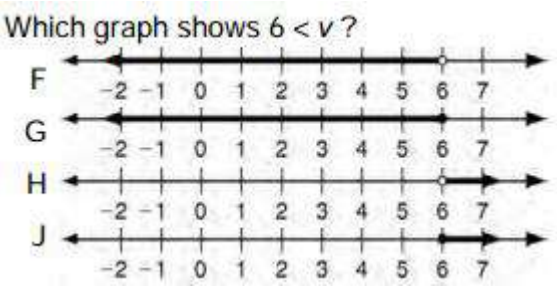
Ama deposited her babysitting money into her savings account, which already had a balance of $210. Her new balance is $295. Which equation can be solved to find how much she deposited?

A $295 + 210 = x$ C $x + 210 = 295$

B $x + 295 = 210$ D $210x = 295$

2.

Which graph shows $6 < v$?



3.

A new park opened on Monday with 45 visitors. The manager estimates that the number of visitors doubled every day from the previous day during its opening week. About how many visitors did the park receive on Friday?

A 180 C 720

B 225 D 1440

4.

Which equation best describes the relationship between x and y?

x	1	2	3	4
y	−4	−3	−2	−1

F $y = x - 5$ H $y = x + 5$

G $y = -4x$ J $y = 4x$

5.

Solve for w: $45 = 15 - 3w$.

A −20 C 33

B −10 D 63

6.

Solve $|6x - 3| = 9$.

A 2 C −1, −2

B 2, 1 D −1, 2

7.

Solve $d + \frac{3}{4} = -\frac{1}{4}$.

F −1 H $\frac{1}{2}$

G $-\frac{1}{2}$ J 1

8.

Solve the compound inequality $24 \le x - 6 \le 100$.

F $18 \le x$ AND $x \le 94$

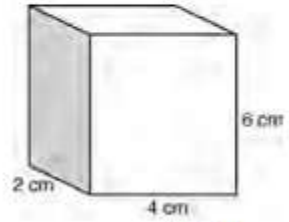
G $30 \le x$ AND $x \le 106$

H $18 \le x$ OR $x \le 94$

J $30 \le x$ OR $x \le 106$

9.

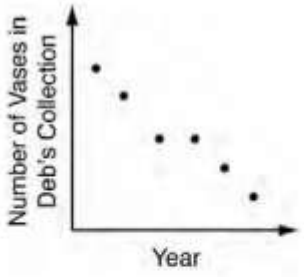
Every dimension of the prism shown below was multiplied by a scale factor to form a similar prism. The new prism has a volume of 6000 cubic centimeters. What was the scale factor?



A 3
B 5
C 48
D 125

10.

Which situation could be represented by the graph below?



A Deb sold the same number of vases every year.
B Deb sold vases for two years and then began purchasing new vases.
C Deb sold vases for two years, neither sold nor bought the next year, and then sold vases for two more years.
D Deb bought vases for two years, sold vases the next year, and then bought vases the last two years.

11.

What is the greatest common factor of $6d^2$ and $18d$?

F $6d^2$
G $6d$
H $3d^2$
J $3d$

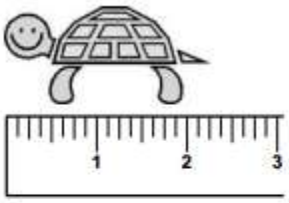
12.

Solve $A = \frac{1}{2}bh$ for h.

F $h = \frac{A}{2b}$
G $h = 2Ab$
H $h = \frac{2b}{A}$
J $h = \frac{2A}{b}$

13.

What is the length of the turtle?



F $2\frac{1}{16}$ in.
G $2\frac{1}{4}$ in.
H $2\frac{3}{8}$ in.
J $2\frac{3}{4}$ in.

14.

Solve for x. $x - \frac{2}{5} = \frac{3}{10}$

A $x = \frac{1}{10}$
B $x = \frac{1}{5}$
C $x = \frac{2}{3}$
D $x = \frac{7}{10}$