Maria bought a jacket that was on sale for 75% of the original price. If she paid $72 for the jacket, what was the original price?

(A) $54  (B) $82  (C) $90  (D) $96  (E) $100
Following a 10 percent pay cut, a labor union asked for an $x$ percent pay raise to restore salaries to their original level. Which of the following is true about $x$?

(A) $x=0.1$  (B) $x=1.1$  (C) $x=10$  (D) $x<10$  (E) $x>10$
The line graph above shows the population of Centerville on January 1 for the years 1996-2001. During which twelve-month period was the population growth closest to 10 percent?

In triangle ABC above, AB=5 and AC=10. What is the area of triangle ABC?

(A) 7.5  (B) 9  (C) 15  (D) 18  (E) 25
What is the area of a square with diagonal of length 10, as shown in the figure above?

(A) 50  (B) $\frac{50}{\sqrt{2}}$  (C) 100  (D) $\frac{100}{\sqrt{2}}$  (E) $100\sqrt{2}$
\[ \frac{1}{t} + \frac{2}{t^2} = \frac{3}{t^3} \]

Two different values of t satisfy the equation above. What is the sum of these two values of t?

(A) -4  (B) -2  (C) 0  (D) 2  (E) 4
If \( \frac{3}{4t-1} = \frac{1}{2t+5} \), then \( t = \)

(A) -8 \hspace{1cm} (B) -3 \hspace{1cm} (C) \frac{7}{5} \hspace{1cm} (D) \frac{8}{5} \hspace{1cm} (E) 7
If \( \frac{3^{100}}{3^x} = \frac{1}{9} \), then \( x = \)

(A) 900  (B) 200  (C) 102  (D) 98  (E) -50
Ten pounds of fruit – apples and pears – were bought for $5.45. If apples cost $0.60 per pound and pears cost $0.50 per pound, how many pounds of apples were purchased?

(A) 4    (B) 4.5    (C) 5    (D) 5.5    (E) 6
Jeff plans to build a fence around a rectangular garden with an area of 60 square feet. If the length of the garden is 3 feet more than three times its width, how many feet of fencing will Jeff need?

(A) 19 (B) 32 (C) 38 (D) 46 (E) 64
Which of the following is an equation of the line that has an $x$-intercept of $-2$ and a $y$-intercept of 3?

(A) $y = \frac{2}{3}x - 2$

(B) $y = \frac{2}{3}x + 3$

(C) $y = \frac{3}{2}x - 2$

(D) $y = \frac{3}{2}x + 3$

(E) $y = -\frac{3}{2}x + 3$
Which of the following is NOT the graph of a function $y=f(x)$?
Which of the following is NOT the graph of a function $y = f(x)$?
The dimensions of a certain type of brick, in inches, are $2 \times 3 \times 6$. How many bricks of this type are needed to have a total volume of 1 cubic foot?

(A) 4   (B) 24   (C) 30   (D) 36   (E) 48
The average price of gas increased by 10 percent during one year. If $x$ represents the average price of gas at the beginning of the year and $y$ represents the average price of gas at the end of the year, which of the following is true?

(A) $\frac{x}{y} = 0.1$

(B) $\frac{y}{x} = 0.1$

(C) $y - x = 0.1$

(D) $\frac{y - x}{x} = 0.1$

(E) $\frac{y - x}{y} = 0.1$