

$$X = 12$$

$$2x - 5 = -19$$

$$2x = -14$$

$$x = -7$$

The two solutions are -7 and 12 .

Question 20

CORRECT

If Maria left a \$10.16 tip on a breakfast that cost \$86.89, approximately what percentage was the tip?

12%

B 17%

C 25%

D 31%

Question 20 Explanation:

The correct answer is (A). The easiest way to answer this question is to round the numbers. Let's say the tip is \$10 and the total was \$87. $\$10/\$87 =$ approximately 11%. (A) is the closest answer to our approximation.

Question 21

CORRECT

A nurse working at a medical clinic earns \$17.81 per hour. The nurse works three 8-hour shifts and one 12-hour shift every week, and is paid weekly. Weekly deductions are: federal tax \$102.80, state tax \$24.58, federal insurance \$18.13, and family health insurance \$52.15. What is the nurse's take-home pay each week?

A \$158.54

\$443.50

C \$514.74

D \$641.16

Question 21 Explanation:

The correct answer is (B). First you must calculate how many hours the nurse works each week. Three 8-hour shifts plus one 12-hour shift equals 36 hours per week.

$$13 \times 7 = 91$$

So the total cost will be $77 + 91$, which is 168.

Question 29

CORRECT

$$7 \times 4 + (9 - 6) + 13$$

Simplify the expression above. Which of the following is correct?

A 34

B 37

C 41

44

Question 29 Explanation:

The correct answer is (D). According to the order of operations, do what is inside the parenthesis first:

$$7 \times 4 + (3) + 13$$

Next, move left to right, doing any multiplication or division:

$$28 + 3 + 13$$

Finally, move left to right, doing any addition or subtraction:

$$31 + 13 = 44$$

Question 30

CORRECT

Write the number 1906 in Roman numerals.

A MCMLXVIII

B MCMXVI

MCMVI

D XIXVI

Question 30 Explanation:

The correct answer is (C). In the Roman numeral system, M = 1000, D = 500, C = 100, L = 50, X = 10, V = 5, and I = 1. The ones, tens, hundreds and thousands must be treated as separate items. If a smaller item precedes a larger item, as in CM, it is treated as the difference of the two, so $CM = 1000 - 100 = 900$.

$$1000 = M$$