Exercise Set 2 (Calculator)

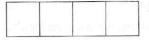
12

Let m be a positive real number. Increasing m by 60% then decreasing the result by 50% is equivalent to dividing m by what number?



13

What is the sum of the first 50 positive even integers?



14

Three years ago, Nora was half as old as Mary is now. If Mary is four years older than Nora, how old is Mary now?



15

If 2/3 of the seats at a football stadium were filled at the beginning of the game, and at halftime 1,000 spectators left, leaving 3/7 of the seats filled, what is the total number of seats in the stadium?



16

If three candy bars and two gumdrops cost \$2.20, and four candy bars and two gumdrops cost \$2.80, what is the cost, in dollars, of one gumdrop?



1

If $\frac{x^2-2x+1}{2-2x}=-3$, what is the value of x-1?



18

Subtracting 3 from a number and then multiplying this result by 4 is equivalent to multiplying the original number by 4 and then subtracting what number?



19

In a poker game, a blue chip is worth 2 dollars more than a red chip, and a red chip is worth 2 dollars more than a green chip. If 5 green chips are worth m dollars, then which of the following represents the value, in dollars, of 10 blue chips and 5 red chips?

- A) 50 + 3m
- B) 18 + 60m
- C) 40 + 3m
- D) 28 + 20m

20

A train travels at an average speed of 50 miles per hour for the first 100 miles of a 200-mile trip, and at an average of 75 miles per hour for final 100 miles. What is the train's average speed for the entire trip?

- A) 58.5 mph
- B) 60.0 mph
- C) 62.5 mph
- D) 63.5 mph

21

Which of the following is equivalent to $3m(m^2 \times 2m)$ for all real values of m?

- A) $3m^2 + 6m$
- B) $3m^2 \times 6m$
- C) $3m^3 \times 6m^2$
- D) 6m4

22

If the cost of living in a certain city increased by 20% in the 10 years from 1980 to 1990, and increased by 50% in the 20 years from 1980 to 2000, what was the percent increase in the cost of living from 1990 to 2000?

- A) 15%
- B) 20%
- C) 25%
- D) 30%