Exercise Set 3 (Calculator)

1

What number is 150% of 30?

2

If the areas of two circles are in the ratio of 4:9, the circumference of the larger circle is how many times the circumference of the smaller circle?

3

What number is 30% less than 70?

4

What number is the same percent of 36 as 5 is of 24?

5

David's motorcycle uses 2/5 of a gallon of gasoline to travel 8 miles. At this rate, how many miles can it travel on 5 gallons of gasoline?

6

The retail price of a shirt is $60, but it is on sale at a 20% discount and you have an additional 20% off coupon. If there is also a 5% sales tax, is the final cost of the shirt?

A) $34.20

B) $36.48

C) $37.80

D) $40.32

7

If the price of a house increased from $40,000 to $120,000, what is the percent increase in price?

A) 67%

B) 80%

C) 200%

D) 300%

8

At a student meeting, the ratio of athletes to non athletes is 3:2, and among the athletes the ratio of males to females is 3:5. What percent of the students at this meeting are female athletes?

A) 22.5%

B) 25%

C) 27.5%

D) 37.5%

9

To make a certain purple dye, red dye and blue dye are mixed in a ratio of 3:4. To make a certain orange dye, red dye and yellow dye are mixed in a ratio of 3:2. If equal amounts of the purple and orange dye are mixed, what fraction of the new mixture is red dye?

A) $\dfrac{9}{20}$

B) $\dfrac{1}{2}$

C) $\dfrac{18}{35}$

D) $\dfrac{27}{40}$

10

If the price of a stock declined by 30% in one year and increased by 80% the next year, by what percent did the price increase over the two-year period?
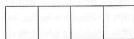
A) 24%

B) 26%

C) 50%

D) 500

11

A farmer has an annual budget of $1,200 for barley seed, with which he can plant 30 acres of barley. If next year the cost per pound of the seed is projected to decrease by 20%, how many acres will he be able to afford to plant next year on the same budget?
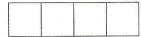
A) 24

B) 25

C) 36

D) 37.5

12

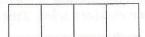If x is $\frac{2}{3}$% of 90, what is the value of $\frac{2}{3} - x$?

13

If n is 300% less than $\frac{5}{2}$, what is the value of $|n|$?

14

The cost of a pack of batteries, after a 5% sales tax, is $8.40. What was the price before tax, in dollars?

15

If the price of a sweater is marked down from $80 to $68, what is the percent discount? (Ignore the % symbol when gridding.)

16

Three numbers, a, b, and c, are all positive. If b is 30% greater than a, and c is 40% greater than b, what is the value of $\frac{c}{a}$?
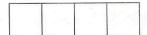
17

If the width of a rectangle decreases by 20%, by what percent must the length increase in order for the total area of the rectangle to double? (Ignore the % symbol when gridding.)

18

Two middle school classes take a vote on the destination for a class trip. Class A has 25 students, 56% of whom voted to go to St. Louis. Class B has n students, 60% of whom voted to go to St. Louis. If 57.5% of the two classes combined voted to go to St. Louis, what is the value of n?

19

If 12 ounces of a 30% salt solution are mixed with 24 ounces of a 60% salt solution, what is the percent concentration of salt in the mixture?

A) 45%

B) 48%

C) 50%

D) 54%

20

If the length of a rectangle is doubled but its width is decreased by 10%, by what percent does its area increase?

A) 80%

B) 90%

C) 180%

D) 190%