# VEDIC  MATHEMATICS

1. Find the square of 75

A. 2555

B. 4525

C. 3555

D. 5625

Answer: Option   D

Explanation:
Multiply 5 by 5 and put 25 as your right part of answer.

Multiply 7 with the next higher digit ie (7+1)=8 gives
56 as the left part of the answer,

Answer is 5625

2. Find the value of 93*86

A. 2448

B. 5998

C. 7998

D. 9318

Answer: Option C

Explanation:

100-86=14, 100-93=7
14*7=98(last two digits)
93-14=86-7=79
Therefore, the correct answer is 7998

3. Find the square of 55

A. 4255

B. 3025

C. 6525

D. 7225

Answer: Option  B

Explanation:
$55^2 \Rightarrow (5*6)25 = 3025$

4. Find the value of 51*27
A. 1377

B. 1355

C. 3227

D. 4027

Answer: Option A

Explanation:

51

27

1*7=07(write07)

1*2+5*7+2(carried over)=37(write 7 and 3 is carried over to the next step)

5*2+3(carried over)=13 (write 13)

Therefore,1377 is the answer.

5. Find the square of 107

A. 11449

B. 10449

C. 13443

D. 14439

Answer: Option A

Explanation:

107 is 7 more than the base 100, $7^2$ is 49.

Then the left side is 107+7=114

Thus, square becomes 11449.

6. Addition of 39+6

A. 45

B. 50

C. 65

D. 35

Answer: Option A

Explanation:

Here 39 is close to 40 and is less then it.

So take 1 from 6 to make 40 and then there will be 5 which should be added to give 40.

7. Round 14.851 to the nearest tenth.

A. 14.85

B. 10

C. 14.9

D. 15

Answer: Option  C

Explanation:

The tenths place is the first number to the right of the decimal. The number 8 is in the tenths place. To decide whether to round up or stay the same, look at the number to the right of the tenths place. Since that number is 5 or above, round the tenths place up to 9 and drop the digits after the tenths place.

8. Round 468.235 to the nearest hundredth

A. 500

B. 568.235

C. 468.24

D. 468.2

Answer: Option  C

Explanation:

The hundredths place is the second digit to the right of the decimal point (3). To decide how to round, you must look at the digit to the right of the hundredths place (5). Since this digit is 5 or greater, the hundredths place is rounded up to 4, producing the number 468.24.

9. Divide $6.8 \times 10^5$ by $2.0 \times 10^2$. Write your answer in scientific notation.

A. $4.8 \times 10^3$

B. $4.8 \times 10^{2.5}$

C. $3.4 \times 10^3$

D. $3.4 \times 10^4$

Answer: Option C

Explanation:
To divide numbers written in scientific notation, divide the first numbers ($6.8 \div 2.0 = 3.4$); then divide the powers of 10, which means you subtract the exponents of 10 ($10^5 \div 10^2 = 10^3$). The answer is $3.4 \times 10^3$.

10. The following are four times from a 400-meter race. Which is the fastest time?

A. 10.1

B. 10.14

C. 10.2

D. 10.09

Answer: Option   D

Explanation:

The fastest time is the smallest number. If you chose c, you chose the slowest time since it is the largest number (this person took the longest amount of time to finish the race). To compare decimals easily, make the numbers have the same number of decimal places; $10.09 < 10.10 < 10.14 < 10.20$.

11. How much greater is 0.0543 than 0.002?

A. 0.0343

B. 0.0072

C. 0.0523

D. 0.0563

Answer : Option C

Explanation:

To find out how much greater a number is, you need to subtract; $0.0543 - 0.002 = 0.0523$.

To subtract decimals, line the numbers up vertically so that the decimal points align. Then, subtract normally.

12. Which number falls between 5.56 and 5.81?

A. 5.54

B. 5.87

C. 5.6

D. 5.27

Answer: Option  C

Explanation:

If you add a zero to the end of 5.6 to get 5.60, it is easier to see that 5.56 < 5.60 < 5.81.

13. Which of the following decimals is the greatest number?

A. 0.064

B. 0.007

C. 0.1

D. 0.04236

Answer: Option C

Explanation:

If you add zeros to the end of each of the numbers so that each number has 5 places after the decimal point, it is easier to compare the numbers; $0.00700 < 0.04236 < 0.06400 < 0.10000$.

14. What is the smallest possible number that can be created with four decimal places using the numbers 3, 5, 6, and 8?

A. 0.8653

B. 0.3568

C. 0.6538

D. 0.5368

Answer: Option   B

Explanation:

Place the smallest number in the largest place value and work your way down, putting the digits in ascending order. Thus, the answer is 0.3568.

15. Which of the following numbers is equivalent to 12.087?

A. 12.0087

B. 120.087

C. 12.0870

D. 102.087

Answer: Option   C

Explanation:

Zeros can be added to the end (right) of the decimal portion of a number without changing the value of the number; 12.0870 is equivalent to 12.087—a 0 has just been added to the end of the number.

16. Which of the following numbers will yield a number larger than 23.4 when it is multiplied by 23.4?

A. 0.999

B. 0.0008

C. 0.3

D. 1.0002

Answer: Option  D

Explanation:

When multiplying by a number less than 1, you get a product that is less than the number you started with. Multiplying by a number greater than 1 gives you a larger number than you started with. Therefore, multiplying by 1.0002 will yield a number larger than the one you started with

17. How will the decimal point move when 245.398 is multiplied by 100?

A. It will move three places to the right.

B. It will move three places to the left.

C. It will move two places to the right.

D. It will move two places to the left.

Answer: Option    C

Explanation:

It is moved two places to the right. When multiplying by multiples of 10, the decimal point is moved to the right according to the number of zeros. For example: Multiply by 10 and move the decimal one place; multiply by 1,000 and move the decimal three places

18. If 967.234 is divided by 10, how will the decimal point move?

A. It will move one place to the right.

B. It will move one place to the left.

C. It will move two places to the right.

D. It will move two places to the left.

Answer: Option B

Explanation:

It will move one place to the left. When dividing by multiples of 10, the decimal point is moved to the left according to the number of zeros. For example: Divide by 100 and move the decimal two places; divide by 1,000 and move the decimal three places.

19. A pair of pants costs $24. The cost was reduced by 8%. What is the new cost of the pants?

A. $25.92

B. $21.06

C. $22.08

D. $16.00

Answer: Option C

Explanation:

If the cost of the pants is reduced by 8%, the cost of the pants is 92% of the original cost $(100\% - 8\% = 92\%)$.

To find 92% of the original cost, $\$24 \times 0.92 = \$22.08$.

20. Peter purchased 14 new baseball cards for his collection. This increased the size of his collection by 35%. How many baseball cards does Peter now have?

A. 5

B. 54

C. 40

D. 34

Answer: Option B

Explanation:

First, find how many baseball cards Peter had originally. Use a proportion to find the original number of baseball cards; part/whole=%/100_x0002_. The 14 baseball cards that he added to his collection is the part. The whole number of baseball cards is what we are looking for, so call it x.

The % is 35 (the percent of increase);

14/x=35/100_x0002_ => (14)(100) = 35x => x=40

The original number of baseball cards was 40, and 14 more were added to the collection for a total of 54 cards.

21. Joey has 30 pages to read for history class tonight. He decided that he would take a break when he finished reading 70% of the pages assigned. How many pages must he read before he takes a break?

A. 7

B. 21

C. 9

D. 18

Answer: Option

Explanation:

To find 70% of 30, you must multiply 30 by the decimal equivalent of 70% (0.70); $30 \times 0.70 = 21$.

22. The Dow Jones Industrial Average fell 2% today. The Dow began the day at 8,800. What was the Dow at the end of the day after the 2% drop?

A. 8,600

B. 8,976

C. 8,624

D. 8,720

Answer: Option C

Explanation:

The Dow lost 2%, so it is worth 98% of what it was worth at the beginning of the day $(100\% - 2\% = 98\%)$.

To find 98% of 8,800

$8,800 \times 0.98 = 8,624$.

23. The population of Hamden was 350,000 in 1990. By 2000, the population had decreased to 329,000. What percent of decrease is this?

A. 16%

B. 7.5%

C. 6%

D. 6.4%

Answer : Option  C

Explanation:

First, find the number of residents who left Hamden by subtracting the new population from the old population; $350,000 - 329,000 = 21,000$.

The population decreased by 21,000.

To find what percent this is of the original population, $21,000 \div 350,000 = 0.06; 0.06 = 6\%$.

24. Rebecca is 12.5% taller than Debbie. Debbie is 64 inches tall. How tall is Rebecca?

A. 42 inches

B. 8 inches

C. 56 inches

D. 72 inches

Answer: Option   D

Explanation:

Since Rebecca is 12.5% taller than Debbie,

She is 112.5% of Debbie's height (100% + 12.5% = 112.5%).

To find 112.5% of Debbie's height,

$64 \times 1.125 = 72$ inches.

25. A tent originally sold for $260 and has been marked down to $208. What is the percent of discount?

A. 20%

B. 25%

C. 52%

D. 18%

Answer: Option A

Explanation:

Find the number of dollars off.

$260 − $208 = $52.

Next, determine what percent of the original price

$52 ÷ $260 = 0.20; 0.20 is equivalent to 20%.

26. The football boosters club had 80 T-shirts made to sell at football games. By mid-October, they had only 12 left. What percent of the shirts had been sold?

A. 85%

B. 15%

C. 60%

D. 40%

Answer: Option A

Explanation:

Determine the number of T-shirts sold;

80 − 12 = 68. To find what percent of the original number of shirts 68 is

68 ÷ 80 = 0.85; 0.85 is equivalent to 85%.

27. What is 19% of 26?

A. 21.06

B. 4.94

C. 19

D. 5

Answer: Option  B

Explanation:

To find 19% of 26

$26 \times 0.19 = 4.94.$

28. 64% of the students in the school play are boys. If there are 75 students in the play, how many are boys?

A. 64

B. 45

C. 27

D. 48

Answer: Option D

Explanation:
To find 64% of 75, multiply 75 by the decimal equivalent of 64% (0.64); 75 × 0.64 = 48.

29. Coastal Cable had 1,440,000 customers in January of 2002. During the first half of 2002 the company launched a huge advertising campaign. By the end of 2002 they had 1,800,000 customers. What is the percent of increase?

A. 36%

B. 21%

C. 20%

D. 25%

Answer: Option D

Explanation:

Coastal Cable gained a total of 360,000 customers $(1,800,000 - 1,440,000 = 360,000)$.

To find out what percent of the original number of customers 360,000 represents,

$360,000 \div 1,440,000 = 0.25$; 0.25 is equivalent to 25%.

30. 450 girls were surveyed about their favorite sport, 24% said that basketball is their favorite sport, 13% said that ice hockey is their favorite sport, and 41% said that softball is their favorite sport. The remaining girls said that field hockey is their favorite sport. What percent of the girls surveyed said that field hockey is their favorite sport?

A. 37%

B. 22%

C. 78%

D. 35%

Explanation:

The percents must add to 100%;

24% + 13% + 41% = 78%.

If 78% of the girls surveyed have been accounted for, the remainder of the girls must have said that field hockey is their favorite sport.

To find the percent that said field hockey is their favorite sport, subtract 78% from 100%;

100% − 78% = 22%;

22% of the girls said that field hockey is their favorite sport.