

Section 1:

Number & Operations

Words to Know: Integer, Decimal, Multiplication, Division, Ratio, Percentage, Even, Odd, Whole Number, Quotient

Decimal Multiplication (A)

Find each product.

$$\begin{array}{r} 66.71 \\ \times 73.25 \\ \hline \end{array}$$

$$\begin{array}{r} 73.52 \\ \times 33.33 \\ \hline \end{array}$$

$$\begin{array}{r} 91.81 \\ \times 76.83 \\ \hline \end{array}$$

$$\begin{array}{r} 58.45 \\ \times 91.74 \\ \hline \end{array}$$

$$\begin{array}{r} 49.74 \\ \times 89.23 \\ \hline \end{array}$$

$$\begin{array}{r} 72.72 \\ \times 52.08 \\ \hline \end{array}$$

$$\begin{array}{r} 63.25 \\ \times 20.69 \\ \hline \end{array}$$

$$\begin{array}{r} 70.48 \\ \times 37.92 \\ \hline \end{array}$$

Dividing Decimals (A)

Find each quotient.

$$3.9 \overline{) 38.22}$$

$$7.6 \overline{) 34.2}$$

$$5.4 \overline{) 11.88}$$

$$9.3 \overline{) 58.59}$$

$$1.6 \overline{) 8.96}$$

$$9.2 \overline{) 77.28}$$

$$5.9 \overline{) 35.4}$$

$$7.6 \overline{) 69.92}$$

$$6.9 \overline{) 58.65}$$

$$6.2 \overline{) 49.6}$$

$$1.7 \overline{) 16.83}$$

$$7.1 \overline{) 12.07}$$

Proportions

State if each pair of ratios forms a proportion.

1) $\frac{4}{2}$ and $\frac{20}{6}$

2) $\frac{3}{2}$ and $\frac{18}{8}$

3) $\frac{4}{3}$ and $\frac{16}{12}$

4) $\frac{4}{3}$ and $\frac{8}{6}$

5) $\frac{12}{24}$ and $\frac{3}{4}$

6) $\frac{6}{9}$ and $\frac{2}{3}$

Solve each proportion.

7) $\frac{10}{k} = \frac{8}{4}$

8) $\frac{m}{10} = \frac{10}{3}$

9) $\frac{2}{x} = \frac{7}{9}$

10) $\frac{3}{x} = \frac{7}{10}$

$$11) \frac{4}{9} = \frac{2}{x}$$

$$12) \frac{6}{a} = \frac{3}{8}$$

$$13) \frac{8n}{8} = \frac{8}{3}$$

$$14) \frac{7}{9} = \frac{a}{5}$$

$$15) \frac{p}{8} = \frac{13}{2}$$

$$16) \frac{3}{13} = \frac{v}{3}$$

$$17) \frac{10}{12} = \frac{2}{n}$$

$$18) \frac{11}{10} = \frac{r}{11}$$

$$19) \frac{x}{9} = \frac{7}{14}$$

$$20) \frac{a}{10} = \frac{11}{14}$$

$$21) \frac{v}{12} = \frac{10}{2}$$

$$22) \frac{6}{14} = \frac{5}{n}$$

Percent Calculations (A)

Calculate the percent or value requested.

1. What is 93% of 600?

2. What percent of 825 is 627?

3. 6 is 15% of what amount?

4. 368 is 64% of what amount?

5. 3 is 1% of what amount?

6. What percent of 350 is 252?

7. What percent of 100 is 79?

8. What percent of 925 is 37?

9. 247 is 38% of what amount?

10. What is 78% of 550?

Name : _____

Score : _____

Teacher : _____

Date : _____

Word Problems

- 1) In one particular suburb, 50% of families own a terrier. If there are a total of 24 families in this neighborhood that own a dog in general, then how many dog owners own a terrier? Round your answer to the nearest whole number if necessary. _____
- 2) One baseball team won 24 games throughout their entire season. Of all their games, this team won 80% of them. Given this, how many games in total did this baseball team play? Round your answer to the nearest whole number if necessary. _____
- 3) At a local department store, jeans are typically priced at \$30. Due to a special, the jeans are reduced to 20% of their original price. How much are jeans now? Round your answer to the nearest whole number if necessary. _____
- 4) Sara went to her local zoo that featured 18 canine exhibits. If the zoo features 45 exhibits in total, then what percent of the zoo's exhibits feature canines? Round your answer to the nearest whole number if necessary. _____
- 5) Keith decided to look at new and used SUVs. Keith found a used SUV for \$12000. Keith found that he paid 50% of the price of a new SUV. How much would a new SUV cost? Round your answer to the nearest whole number if necessary. _____
- 6) At a construction job for a museum there are 15 painters. Of these painters, 60% of them paint the interior of the museum. How many painters are painting the interior? Round your answer to the nearest whole number if necessary. _____
- 7) There are 20 students in a class and 15 of these students passed their Geometry test. What percentage of these students passed their test? Round your answer to the nearest whole number if necessary. _____
- 8) While mining, Fred found a large metal bar that weighed 20 grams. Fred was also able to determine that the bar had 12 grams of lead. What percent of the weight of the bar was lead? Round your answer to the nearest whole number if necessary. _____
- 9) For one Biology test, Joan correctly answered 34 questions. These correct answers gave him a percent score of 85%. In total, how many questions were on this Biology test? Round your answer to the nearest whole number if necessary. _____
- 10) Benny has to spend \$14000 on expenses each year. If that amount of money is 70% of his salary, then how much money does Benny make working as an administrator per year? Round your answer to the nearest whole number if necessary. _____



Exponents in Factor Form (A)

Write each exponent in factor form.

Exponent

$5^6 = 5 \times 5 \times 5 \times 5 \times 5 \times 5$

Base

$6^{10} =$

$9^4 =$

$8^3 =$

$7^{11} =$

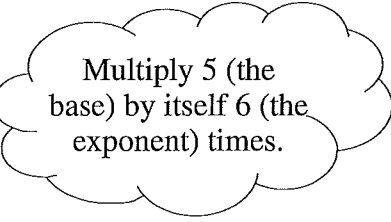
$8^7 =$

$1^{11} =$

$8^6 =$

$3^{11} =$

$7^7 =$



Multiply 5 (the base) by itself 6 (the exponent) times.

Name : _____

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Word Problems

- 1) Some number was added to 5.9. This sum was then divided by 0.7. Finally, the quotient was multiplied by 4. The product was 4. What was the number? _____
- 2) 8 was added to some number. This sum was then multiplied by 2, and that product was then divided by 2 for a result of -1. Given this, what was the initial number? _____
- 3) Some number was divided by 5.8. After which, the quotient is added to 5.5. Next, the sum is multiplied by 3, which resulted in 13.5. Given this product, find the initial number. _____
- 4) 7 was multiplied by a particular number. Then, 2.2 was divided into the product. Finally, 11.8 was added to this quotient, giving 32.8. State the initial number. _____
- 5) A certain number was multiplied by 4. Then, this product was divided by 2. Finally, 6 was subtracted from this quotient, resulting in a difference of -24. What was this number? _____
- 6) A particular number was divided by 0.4 and then 2.5 was taken away from that quotient. Finally, this difference was multiplied by 2. Given the product was 63, what was that number? _____
- 7) 6 was divided into a particular number. This quotient was then multiplied by 2, and 13 was taken from that product. If the previous operation resulted in -11, find the initial number. _____
- 8) First, 114.3 was divided by some number. The resulting quotient was then multiplied by 3. Following this, 6.3 was subtracted from the product, giving 20.7. What was the initial divisor? _____
- 9) 110 was divided by a particular number, then 14 was taken from the quotient. Afterwards, this difference was multiplied by 8. Giving a product of -32. Find the particular number. _____
- 10) Some number was divided into 195. This quotient was then multiplied by 8, after which the resulting product was added to 9. Given this sum totalled to -95, find the initial number. _____

