

SHOW ALL WORK!

1a. In a recent survey, 80% of those responding said they feel that they do not eat enough vegetables. If there were 1300 people surveyed, how many of them that responded feel this way?

b. How many people surveyed feel that they do eat enough vegetables?

2. There were two candidates in a student government election for 7th grade President, Kate and Larry. Out of 306 total votes, Kate received 230 and Larry received 76. What percentage of the students voted for the winner?

3a. You have a jar that contains 150 coins. You know that 16% of the coins are nickels. How many nickels are in the jar?

b. What is the value of the nickels in the jar?

5. Find the sale price of jeans costing \$49.95 after a 15% discount is taken.

6. Find the total cost of a \$15.20 CD with 7% sales tax.

7. James wanted to purchase a TV that was 20% off. At the register, James ended up saving \$180. What was the original price of the TV?

8. Inline skates are on sale for 35% off the regular price of \$124.99. If an 8% sales tax is added to the total after the discount has been taken, what is the total cost of the inline skates?

SHOW ALL WORK!

a. In a recent survey, 80% of those responding said they feel that they do not eat enough vegetables. If there were 1300 people surveyed, how many of them that responded feel this way?

do not eat
Vegetables
total people
surveyed

$$\frac{80}{100} = \frac{1040}{1300}$$

(Note: Handwritten arrows show 80 and 100 being multiplied by 1.3 to get 1040 and 1300 respectively.)

1040 people
don't eat
vegetables

b. How many people surveyed feel that they do eat enough vegetables?

$$1300 - 1040 = 260 \text{ eat vegetables}$$

2. There were two candidates in a student government election for 7th grade President, Kate and Larry. Out of 306 total votes, Kate received 230 and Larry received 76. What percentage of the students voted for the winner?

Winner's Votes (Kate)
Total Votes

$$\frac{x}{100} = \frac{230}{306}$$

$$306x = 23000$$

$$\div 306 \quad \div 306$$

$$x = 75.16$$

About
75%

3a. You have a jar that contains 150 coins. You know that 16% of the coins are nickels. How many nickels are in the jar?

nickels
total coins

$$\frac{16}{100} = \frac{24}{150}$$

(Note: Handwritten arrows show 16 and 100 being multiplied by 1.5 to get 24 and 150 respectively.)

24 nickels

b. What is the value of the nickels in the jar?

$$24 \text{ nickels} \times \$0.05 = \$1.20$$

5. Find the sale price of jeans costing \$49.95 after a 15% discount is taken.

discount
Original

$$\frac{15}{100} = \frac{x}{49.95}$$

$$100x = 749.25$$

$$\div 100 \quad \div 100$$

$$x = 7.4925 \approx \$7.49$$

$$\begin{array}{r} 49.95 \\ - 7.49 \\ \hline \end{array}$$

\$ 42.46
Sale price

6. Find the total cost of a \$15.20 CD with 7% sales tax.

tax
total

$$\frac{7}{100} = \frac{x}{15.20}$$

$$100x = 106.4$$

$$\div 100 \quad \div 100$$

$$x = 1.064 \approx \$1.06$$

$$15.20$$

$$+ 1.06$$

$$\text{\$ } 16.26$$

total

7. James wanted to purchase a TV that was 20% off. At the register, James ended up saving \$180. What was the original price of the TV?

discount
Original

$$\frac{20}{100} = \frac{180}{x}$$

$\overset{\times 9}{\curvearrowright}$
 $\underset{\times 9}{\curvearrowleft}$

$$\text{\$ } 900$$

for the TV

8. Inline skates are on sale for 35% off the regular price of \$124.99. If an 8% sales tax is added to the total after the discount has been taken, what is the total cost of the inline skates?

discount
original

$$\frac{35}{100} = \frac{x}{124.99}$$

$$100x = 4374.65$$

$$\div 100 \quad \div 100$$

$$x = \$43.75$$

$$\text{\$ } 124.99$$

$$- 43.75$$

$$\text{\$ } 81.24$$

tax
total

$$\frac{8}{100} = \frac{x}{81.24}$$

$$100x = 649.92$$

$$\div 100 \quad \div 100$$

$$x = \$6.50$$

$$\text{\$ } 81.24$$

$$+ 6.50$$

$$\text{\$ } 87.74 \text{ total}$$