

You need out your warm up, calculator & agenda

Homework: Tax & Tip

Opening: Direct Variation? If so what is k? $\frac{y}{x}$

1.

x	2	4	6	9
y	10	12	14	19

$\frac{y}{x}$

$\frac{y}{x}$

$\frac{10}{2}$ $\frac{12}{4}$ $\frac{14}{6}$ $\frac{19}{9}$

find K

2.

x	3	6	9
y	18	36	54

$y = kx$

$x = 6x$

3. Multiply: $0.15 \cdot 35$

$$\begin{array}{r} 35 \\ \times 0.15 \\ \hline 175 \\ 350 \\ \hline 5.25 \end{array}$$

$$\begin{array}{r} 5.55 \\ \times 0.9 \\ \hline 5.25 \\ 5.55 \\ \hline 5.25 \end{array}$$

100% % to decimal
move decimal 2 places left

① $\underline{62}\% = .62$

② $\underline{62.5}\% = .625$

③ $\underline{06}\% = .06$

Sales Tax and Tipping Notes

Percent of: 1) Turn the percent into a decimal 2) Multiply

find 30% of 150

$$\textcircled{1} \underline{30\%} = .30$$

$$\textcircled{2} .30 \cdot 150$$
$$\textcircled{45}$$

find 4% of 60

$$\textcircled{1} \underline{4\%} = .04$$

$$\textcircled{2} .04 \cdot 60$$
$$\textcircled{2.4}$$

Sales Tax:

(multiplying)

- 1) Change the % to a decimal (move 2 spaces)
- 2) Find the sale tax amount (x)
- 3) Add the sales tax to the original price. (+)

Example:

Drew buys new exercise equipment that costs \$140. The sales tax is 5.75%. What is the total cost of the equipment? *Let t represent the sales tax*

- 1) $t = 0.0575 \times 140$ -> we know that 5.75% is 0.0575 as a decimal
- 2) $t = 8.05$
- 3) final price = $140 + 8.50 = \$148.50$ -> *add the original price and tax together*

You Try!

1. What is the total cost of a sweatshirt that costs \$42 and the sales tax is 5.5%?

$$\textcircled{1} \quad 5.5\% = .055$$

$$\textcircled{2} \quad 42 \cdot .055 \\ t = 2.31$$

$$\textcircled{3} \quad 42 + 2.31 \\ \boxed{\$44.31}$$

2. \$46 for a pair of shoes. Sales tax is 2.9%

$$\textcircled{1} \ 2.9\% = .029$$

$$\textcircled{2} \ 46 \times .029$$
$$t = 1.33$$

$$\textcircled{3} \ 46 + 1.33$$

$$\boxed{\$47.33}$$

3. A new chair costs \$178.90 Sales tax is 5.75%

$$\textcircled{1} 5.75\% = .0575$$

$$\textcircled{2} 178.90 \times .0575$$
$$t = 10.28$$

$$\textcircled{3} 178.90 + 10.28$$

$$\textcircled{\$189.18}$$

4. A \$270 bike with 6% sales tax



Tipping:

- 1) Change the % to a decimal (move 2 spaces)
- 2) Find the tip amount (x)
- 3) Add the tip to the original bill. (+)

Example:

Your bill at a restaurant is \$35. You want to leave a 20% tip. Total bill?

- 1) $t = 0.20 \times 35$ -> we know that 20% as a decimal is .20
- 2) $t = 5.25$
- 3) $35 + 5.25 = \$40.25$ -> *add the original bill plus the tip*

You Try!

1. A haircut costs \$20. How much is your total bill if you want to leave a 15% tip?

① $15\% = .15$ ② $20 \times .15$
 $t = 3$ ③ $20 + 3$
 $\$23$

2. Phil wants to tip the cab driver 20%. If his total commute costs \$15, what is the total cost?

① $20\% = .20$ ③ $15 + 3$
 $\$18$

② $15 \times .20$
 $t = 3$

3. \$58 dinner bill, 20% tip

① $20\% = .20$

② $58 \times .20$
 $t = 11.60$

4. \$43 dinner with a 18% tip

③ $58 + 11.60$
 $\$69.60$

Tax & Tip: (find the tax amount, then find the tip off the new total)

-Find the total cost of a spa treatment of \$42.

① 6% sales tax & 20% tip

① tax
 $0.06\% = .06$

② $.06 \times 42$
 $t = 2.52$

③ $42 + 2.52$
 44.52

④ $20\% = .20$

⑤ $44.52 \times .20$
 $t = 8.90$

⑥ $8.90 + 44.52$
 $\boxed{\$53.42}$

-Find the total cost of a haircut of \$23.

6% sales tax & 18% tip

