

Math 7 Practice Quiz #2
(Sections 2-3, 2-6, 2-7)

Name Key
Block _____ Date _____

1) The regular price of a computer is \$193.59. Find the sale price if it is marked 20% off.

$$\frac{\$ \text{ off}}{\text{Reg}} \quad \frac{20}{100} = \frac{n}{193.59}$$

$$n = 38.718$$

$$\$38.72 \text{ off}$$

$$\begin{array}{r} 193.59 \\ - 38.72 \\ \hline \end{array}$$

$$\$154.87 \text{ sale price}$$

OR 20% off \rightarrow pay 80%

$$\frac{\text{sale price}}{\text{Reg}} \quad \frac{80}{100} = \frac{n}{193.59}$$

$$n = 154.872$$

$$\$154.87 \text{ sale price}$$

2) Will purchased a tent for \$132 that was marked 15% off. How much is Will's discount?

$$\frac{\text{discount}}{\text{Reg}} \quad \frac{15}{100} = \frac{n}{132}$$

$$n = 19.8$$

$$\$19.80 \text{ off}$$

OR discount = 15% of 132

$$0.15(132) = 19.8$$

3) Tara bought a camera for \$129.50. She paid a 4.5% sales tax. What was the total price of the camera including tax?

$$\text{Total} = \text{Reg} + \text{tax}$$

$$100\% + 4.5\%$$

$$\frac{\text{total with tax}}{\text{Reg}} \quad \frac{104.5}{100} = \frac{n}{129.50}$$

$$n = 135.3275$$

$$\$135.33 \text{ total}$$

OR tax = 4.5% of Reg

$$0.045(129.50)$$

$$5.8275$$

$$5.83 \text{ tax}$$

$$\begin{array}{r} \text{total} \quad 129.50 \text{ Reg} \\ + \quad 5.83 \text{ tax} \\ \hline 135.3275 \end{array}$$

4) Jen's family celebrated her birthday at a restaurant. The dinner bill was \$124. Since it was a large group, the restaurant calculated an 18% tip on the bill. How much was the tip?

$$\frac{\text{tip}}{\text{bill}} \quad \frac{18}{100} = \frac{n}{124}$$

$$n = 22.32$$

$$\$22.32 \text{ tip}$$

OR tip = 18% of 124

$$0.18(124)$$

$$\$22.32 \text{ tip}$$

5) Meg has read 36% of her novel. If she has read 180 pages, how many pages are in the novel?

$\frac{\text{pages read}}{\text{total pages}}$

$$\frac{36}{100} = \frac{180}{n}$$

$$n = 500 \text{ pages}$$

6) Tony and Ed scored 65% of their team's points. If their team had a total of 60 points, how many points did they score?

$\frac{\text{T+Ed's pts}}{\text{team's pts}}$

$$\frac{65}{100} = \frac{n}{60}$$

$$n = 39 \text{ points}$$

7) 12 students at Westside Middle School have red hair. This is 2.5% of the total number of students. Find the number of students at Westside.

$\frac{\text{Red}}{\text{All}}$

$$\frac{2.5}{100} = \frac{12}{n}$$

$$n = 480 \text{ students}$$

8) What percent of 75 is 225?

$$\frac{n}{100} = \frac{225}{75}$$

$$n = 300$$

- 9) An item is on sale for \$45.98. Its regular price is \$60. Find the percent discount. Round to the nearest tenth of a percent.

$$\frac{\$ \text{ off (discount)}}{\text{Reg}} \cdot \frac{n}{100} = \frac{14.02}{60} \quad \begin{array}{r} 60 \\ -45.98 \\ \hline 14.02 \text{ off} \end{array}$$

$$n = 23.366$$

23.4% discount

- 10) A baseball player got 12 hits in 40 times at bat. What percent of his times at bat did he get a hit?

$$\frac{\text{hits}}{\text{times at bat}} \cdot \frac{n}{100} = \frac{12}{40}$$

$$n = 30$$

30%

- 11) What number is 8.5% of 380?

$$\frac{8.5}{100} = \frac{n}{380}$$

$$n = 32.3$$

- 12) 240 is 4.8% of what number?

$$\frac{4.8}{100} = \frac{240}{n}$$

$$n = 5000$$

Find the total cost of this item.

* must find sales price

Tax is calculated on sales price.

Regular Price \$36

40% off

6.35% Sales Tax

$$\frac{\text{discount}}{\text{Reg}} = \frac{40}{100} = \frac{n}{36}$$

$$n = 14.40 \text{ off}$$

$$\begin{array}{r} 36 \\ -14.40 \\ \hline 21.60 \text{ sales price} \end{array}$$

$$\frac{\text{tax}}{\text{Sales price}} = \frac{6.35}{100} = \frac{n}{21.60}$$

$$n = 1.3716$$

\$1.37 tax

$$\begin{array}{r} 21.60 \\ + 1.37 \\ \hline 22.9716 \end{array}$$

\$22.97 total with tax

OR 40% off → 60% paid

$$\frac{\text{sale price}}{\text{Reg}} = \frac{60}{100} = \frac{n}{36}$$

$$n = 21.60 \text{ sales price}$$

$$\text{Total with Tax} = \text{Sales price} + \text{Tax}$$

$$100\% + 6.35\%$$

$$106.35\%$$

$$\frac{\text{total with tax}}{\text{sale price}} = \frac{106.35}{100} = \frac{n}{21.60}$$

$$n = 22.9716$$

\$22.97 total with tax