



Warm Up Grade 8

March 13, 2018

1) The regular cost of a new pair of sneakers is \$129.90. The sneakers are on sale for 20% off, what do you have to pay in TOTAL for the sneakers?



$$\begin{aligned} \text{Amount Discount} &= 20\% \text{ of Reg} \\ &= 0.20 \times 129.90 \\ &= 25.98 \end{aligned}$$

↑
this what you save
so subtract

$$\begin{aligned} \text{Sales Price} &= \text{Reg} - \text{Amount Discount} \\ &= 129.90 - \$25.98 \\ &= 103.92 \end{aligned}$$

$$\begin{aligned} \text{Tax} &= 15\% \text{ of Price} \\ &= 15\% \text{ of } 103.92 \\ &= 0.15 \times 103.92 \\ &= \$15.59 \leftarrow \text{add on} \end{aligned}$$

$$\begin{aligned} \text{Cost with tax} &= \begin{array}{cc} \text{Sales Price} & \text{tax} \\ 103.92 & + \quad 15.59 \end{array} \\ &= \$119.51 \end{aligned}$$



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1) The regular cost of a new pair of sneakers is \$129.90. The sneakers are on sale for 20% off, what do you have to pay in TOTAL for the sneakers?



$$\begin{aligned} \text{Amount Discount} &= 20\% \text{ of } 129.90 \\ &= 0.2 \times 129.90 \\ &= \$25.98 \end{aligned}$$

$$\begin{aligned} \text{Sale Price} &= \text{Reg} - \text{Amount Discount} \\ &= 129.90 - 25.98 \\ &= \$103.92 \end{aligned}$$

$$\begin{aligned} \text{Tax} &= 15\% \text{ of Price} \\ &= 0.15 \times \$103.92 \\ &= \$15.59 \end{aligned}$$

$$\begin{aligned} \text{Total with tax} &= \text{Price} + \text{tax} \\ &= 103.92 + 15.59 \\ &= \$119.51 \end{aligned}$$

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1. Percent	Fraction	Decimal
a) 60%	$\frac{60}{100} = \frac{3}{5}$	0.60
b) 9.75%	$\frac{9.75}{100} = \frac{975}{10000} = \frac{39}{400}$	0.0975
c) 97.5%	$\frac{97.5}{100} = \frac{975}{1000} = \frac{39}{40}$	0.975

$$2a) 0.12\% = 0.0012$$

$$b) \frac{4}{5}\% = 0.8\% \\ = 0.008$$

$$c) 0.65\% = 0.0065$$

$$d) \frac{1}{10}\% = 0.1\% \\ = 0.001$$

3.

	Percent	Fraction	Decimal
a)	18%	$\frac{18}{100} = \frac{9}{50}$	0.18
b)	0.6%	$\frac{6}{1000} = \frac{3}{500}$	0.006
c)	87.5%	$\frac{875}{1000} = \frac{7}{8}$	0.875
d)	0.75%	$\frac{75}{10000} = \frac{3}{400}$	0.0075

$$4a) 145\% = 1.45$$

$$b) 350\% = 3.50$$

$$c) 0.44\% = 0.0044$$

$$d) 0.2\% = 0.002$$

5. 112% on a test

Yes, if he had every question correct and the bonus correct the mark can be over 100%

6. 0.8% of total = Hua's

$$0.8\% \text{ of } 5687.50$$

$$0.008 \times 5687.50$$

$$45.5$$

Hua raised \$45.50 for Terry Fox Found.

7a) 15% of $n = 3$

$$0.15n = 3$$

$$\frac{0.15n}{0.15} = \frac{3}{0.15}$$

$$n = 20$$

$$15\% \text{ of } _ = 3$$

$$5\% \text{ of } _ = 1$$

$$100\% \text{ of } _ = 20$$

$$n = 20$$

b) 160% of $n = 80$

$$1.6n = 80$$

$$\frac{1.6n}{1.6} = \frac{80}{1.6}$$

$$n = 50$$

$$160\% \text{ of } _ = 80$$

$$20\% \text{ of } _ = 10$$

$$100\% \text{ of } _ = 10 \times 5$$

$$50$$

8. 8% of ticket were sold by Meryl

$$8\% \text{ of } \underline{n} = \underline{56}$$

$$0.08n = 56$$

$$\frac{0.08n}{0.08} = \frac{56}{0.08}$$

$$n = 700$$

$$\begin{aligned} 9. \text{ Amt of Dec} &= 9850 - 8274 \\ &= 1576 \end{aligned}$$

$$\begin{aligned} \% \text{ Dec} &= \frac{\text{Amt Dec}}{\text{Orig Amt}} \times 100\% \\ &= \frac{1576}{9850} \times 100\% \\ &= 0.16 \times 100\% \\ &= 16\% \end{aligned}$$

$$\begin{aligned} 10. \text{ Disc} &\text{ } \simeq 20\% \text{ of } 32 \\ &= 0.2 \times 32 \\ &= 6.40 \end{aligned}$$

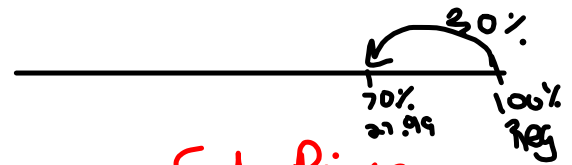
$$\begin{aligned} \text{Sale Price} &= 32 - 6.40 \\ &= 25.60 \end{aligned}$$

$$\begin{aligned} \text{HST} &= 15\% \text{ of } 25.60 \\ &\simeq 0.15 \times 25.60 \\ &= 3.84 \end{aligned}$$

$$\begin{aligned} \text{Total Price} &\simeq 25.60 + 3.84 \\ &= 32.44 \end{aligned}$$

$$\begin{aligned}
 11. \text{ Sale Price} &= \text{Reg} - \text{Disc} \\
 &= 1n - 0.3n \\
 &= 0.7n
 \end{aligned}$$

$$\begin{aligned}
 \text{Disc} &= 30\% \text{ of Reg} \\
 &= 0.3 \times n
 \end{aligned}$$



Sale Price
is
70% of Reg

$$0.7n = 27.99$$

$$\frac{0.7n}{0.7} = \frac{27.99}{0.7}$$

$$n = 39.99 - \text{Reg Price}$$

$$\begin{aligned}
 \text{b) HST on Reg Price} &= 0.15 \times 39.99 \\
 &= 6.00
 \end{aligned}$$

$$\begin{aligned}
 \text{Reg Price + taxes} &= 39.99 + 6.00 \\
 &= 45.99
 \end{aligned}$$

$$\begin{aligned}
 \text{c) HST on sale price} &= 15\% \text{ of } 27.99 \\
 &= 0.15 \times 27.99 \\
 &= 14
 \end{aligned}$$

$$\begin{aligned}
 \text{Sale Price + tax} &= 27.99 + 14 \\
 &= 41.99
 \end{aligned}$$

$$\begin{aligned}
 \text{d) Total Saving} &= 45.99 - 31.63 \\
 &= 13.56
 \end{aligned}$$

$$\begin{array}{l} 12. \text{ Disc} \\ \text{from} \\ \text{Sale} \end{array} \quad \begin{array}{l} 30\% \text{ of } 69 \\ 0.3 \times 69 \\ 20.70 \end{array}$$

$$\begin{array}{l} \text{Sale Price} \\ \\ \end{array} \quad \begin{array}{l} 69 - 20.70 \\ 48.30 \end{array}$$

$$\begin{array}{l} \text{Employee} \\ \text{Disc} \end{array} \quad \begin{array}{l} 15\% \text{ of } 48.30 \\ 0.15 \times 48.30 \\ 7.25 \end{array}$$

$$\begin{array}{l} \text{Employee} \\ \text{Price} \end{array} \quad \begin{array}{l} 48.30 - 7.25 \\ 41.05 \end{array}$$

$$\begin{array}{l} \text{HST} \\ \\ \end{array} \quad \begin{array}{l} 15\% \text{ of } 41.05 \\ 0.15 \times 41.05 \\ 6.16 \end{array}$$

$$\begin{array}{l} \text{Total} \\ \text{Price} \end{array} \quad \begin{array}{l} 41.05 + 6.16 \\ 47.21 \end{array}$$

12

$$\begin{array}{l}
 30\% \text{ of } 69 \\
 0.3 \times 69 \\
 20.70
 \end{array}$$

$$\begin{array}{r}
 48.30 - 7.25 \\
 41.05
 \end{array}$$

$$\begin{array}{r}
 69 - 20.70 \\
 48.30
 \end{array}$$

$$\begin{array}{l}
 15\% \text{ of } 48.30 \\
 0.15 \times 48.30 \\
 7.25
 \end{array}$$

$$\begin{array}{l}
 15\% \text{ of } 41.05 \\
 0.15 \times 41.05 \\
 6.16
 \end{array}$$

$$\begin{array}{r}
 41.05 + 5.34 \\
 46.39
 \end{array}$$

Homework

~~Extra Practice 4~~~~# 1, 2a,b, 3 for computer only, 4 percent decrease only, 6,7~~

$$\frac{\text{Today}}{\text{Yest}} = \frac{37}{33}$$

Mid Unit Review Worksheet

3 on Extra Practice 4
Use NB Tax

part i) the computer price

Quiz Tomorrow

2)

Today \Rightarrow 37 min
Yesterday = 33 min
diff = 4

$$\frac{\text{Diff}}{\text{orig}} \times 100$$
$$\frac{4}{33} \times 100$$

$$5) \text{ pop} = 900$$

0.6% increase in pop each year

Year 1

$$0.6\% \text{ of } 900 = \text{Increase}$$

↓

$$0.006 \times 900$$

$$= 5.4$$

$$\begin{aligned} \text{New Pop} &= 900 + 5.4 \\ &= 905.4 \end{aligned}$$

Year 2 is based on Year 1
0.6% of Year 1

$$0.006 \times 905.4$$

$$\approx 5.434$$

$$\approx 5.4$$

Year 2 Pop

$$\text{Year 1} + \text{Increase Year 2}$$

$$905.4 + 5.4$$

$$910.8$$

Attachments

Extra Practice 4.pdf

Mid Unit Review Worksheet.pdf