



Warm Up Gr 8

Date: Oct. 20



Show work to calculate the following

75% of 88

$$\begin{array}{r} 25\% \text{ of } 88 = 22 \\ \times 3 \\ \hline 75\% \text{ of } 88 = 66 \end{array}$$

5% of 120

$$\begin{array}{r} 10\% \text{ of } 120 = 12 \\ \div 2 \\ \hline 5\% \text{ of } 120 = 6 \end{array}$$

60% of 75

$$\begin{array}{r} 10\% \text{ of } 75 = 7.5 \\ \times 6 \\ \hline 60\% \text{ of } 75 = 45.0 \end{array}$$

15% of 22

$$\begin{array}{r} 10\% \text{ of } 22 = 2.2 \\ 5\% \text{ of } 22 = 1.1 \\ \hline 15\% \text{ of } 22 = 3.3 \end{array}$$

Use Calculator for the following:

a) 77% of 968

$$\begin{array}{l} \downarrow \text{change \% to decimal} \\ \quad (\div 100) \\ = 0.77 \times 968 \\ = 745.36 \end{array}$$

b) 16.5 % of 450

$$\begin{array}{l} \downarrow \text{change \% to decimal} \\ = 0.165 \times 450 \\ = 74.25 \end{array}$$

Worksheet **SOLUTIONS** also on next 4 pages

Percentage of a Number

Name: _____ Score: _____

Calculate and round off to the nearest hundredth.

27% of 120

$$0.27 \times 120$$

$$= 32.4$$

2.1% of 251

$$0.021 \times 251$$

$$= 5.271$$

8.5% of 145

$$0.085 \times 145$$

$$= 12.325$$

28% of 52

$$0.28 \times 52$$

$$= 14.56$$

2.99% of 25

$$0.0299 \times 25$$

$$= 0.7475$$

71% of 76

$$0.71 \times 76$$

$$= 53.96$$

38% of 42

$$0.38 \times 42$$

$$= 15.96$$

32% of 163

$$0.32 \times 163$$

$$= 52.16$$

16% of 29

$$0.16 \times 29$$

$$= 4.64$$

31% of 199

$$0.31 \times 199$$

$$= 61.69$$

4.6% of 212

$$0.046 \times 212$$

$$= 9.752$$

27% of 48

$$0.27 \times 48$$

$$= 12.96$$

7.9% of 35

$$0.079 \times 35$$

$$= 2.765$$

7.1% of 588

$$0.071 \times 588$$

$$= 41.748$$



76% of 322

$$0.76 \times 322$$

$$= 244.72$$

66% of 188

$$0.66 \times 188$$

$$= 124.08$$

113% of 62

$$1.13 \times 62$$

$$= 70.06$$

8.2% of 45

$$0.082 \times 45$$

$$= 3.69$$

21% of 225

$$0.21 \times 225$$

$$= 47.25$$

51% of 66

$$0.51 \times 66$$

$$= 33.66$$

SOLUTIONS

Name: _____ Date: _____

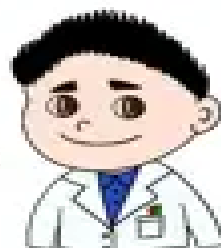
Percentage of Number Worksheet

Calculate the percentages.

1 a. 150% of 50 1.5×50 $= 75$	1 b. 150% of 90 1.5×90 $= 135$
2 a. 100% of 60 1.00×60 $= 60$	2 b. 50% of 100 0.5×100 $= 50$
3 a. 350% of 70 3.5×70 $= 245$	3 b. 150% of 70 1.5×70 $= 105$
4 a. 350% of 50 3.5×50 $= 175$	4 b. 350% of 90 3.5×90 $= 31.5$
5 a. 450% of 100 4.5×100 $= 450$	5 b. 200% of 30 2.0×30 $= 60$
6 a. 250% of 50 2.5×50 $= 125$	6 b. 350% of 40 3.5×40 $= 140$
7 a. 350% of 80 3.5×80 $= 280$	7 b. 150% of 100 1.5×100 $= 150$
8 a. 400% of 80 4.00×80 $= 320$	8 b. 300% of 50 3.00×50 $= 150$

Name: SOLUTIONS

Percentage of a Number



Find the percentage of each number.

1. 20% of 60 = _____

$0.2 \times 60 = 12$

2. 30% of 90 = _____

$0.30 \times 90 = 27$

3. 15% of 60 = _____

$0.15 \times 60 = 9$

4. 40% of 30 = _____

$0.40 \times 30 = 12$

5. 24% of 50 = _____

$0.24 \times 50 = 12$

6. 10% of 100 = _____

$0.10 \times 100 = 10$

7. 50% of 50 = _____

$0.50 \times 50 = 25$

8. 10% of 60 = _____

$0.10 \times 60 = 6$

9. 77% of 100 = _____

$0.77 \times 100 = 77$

10. 45% of 60 = _____

$0.45 \times 60 = 27$

11. 35% of 40 = _____

$0.35 \times 40 = 14$

12. 55% of 20 = _____

$0.55 \times 20 = 11$

13. 40% of 90 = _____

$0.40 \times 90 = 36$

14. 30% of 80 = _____

$0.30 \times 80 = 24$

15. 40% of 50 = _____

$0.40 \times 50 = 20$

16. 25% of 20 = _____

$0.25 \times 20 = 5$

17. 20% of 50 = _____

$0.20 \times 50 = 10$

18. 80% of 95 = _____

$0.80 \times 95 = 76$

19. 55% of 40 = _____

$0.55 \times 40 = 20$

20. 12% of 400 = _____

$0.12 \times 400 = 48$

What Percent? - Whole Percents

Name: SOLUTIONS Score: _____

Calculate the percent numbers.



20 out of 100

$$20 \div 100 = 0.2 = 20\%$$

15 out of 30

$$15 \div 30 = 0.5 = 50\%$$

25 out of 100

$$25 \div 100 = 0.25 \\ = 25\%$$

25 out of 125

$$25 \div 125 = 0.20 \\ = 20\%$$

25 out of 250

$$25 \div 250 = 0.10 \\ = 10\%$$

35 out of 140

$$35 \div 140 = 0.25 \\ = 25\%$$

15 out of 300

$$15 \div 300 = 0.05 \\ = 5\%$$

14 out of 280

$$14 \div 280 = 0.05 \\ = 5\%$$

17 out of 68

$$17 \div 68 = 0.25 \\ = 25\%$$

20 out of 20

$$20 \div 20 = 1.0 \\ = 100\%$$

55 out of 220

$$55 \div 220 = 0.25 \\ = 25\%$$

21 out of 300

$$21 \div 300 = 0.07 \\ = 7\%$$

25 out of 500

$$25 \div 500 = 0.05 \\ = 5\%$$

18 out of 36

$$18 \div 36 = 0.5 \\ = 50\%$$

72 out of 200

$$72 \div 200 = 0.36 \\ = 36\%$$

99 out of 198

$$99 \div 198 = 0.50 \\ = 50\%$$

45 out of 225

$$45 \div 225 = 0.20 \\ = 20\%$$

75 out of 500

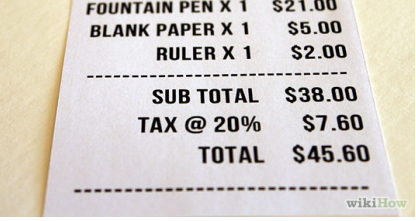
$$75 \div 500 = 0.15 \\ = 15\%$$

60 out of 400

$$60 \div 400 = 0.15 \\ = 15\%$$

16 out of 200

$$16 \div 200 = 0.08 \\ = 8\%$$



Sales Tax and Total Cost



Sales tax is money that you pay to the government on almost everything that you buy.

In NB, we pay harmonized sales tax(HST) which is 15 %.

<http://www.cra-arc.gc.ca/tx/bsnss/tpcs/gst-tps/rts-eng.html>

Not all provinces are the same.

Province	GST and HST	PST
Alberta	5%	0%
British Columbia	5%	7%
Manitoba	5%	7%
New Brunswick	15%	N/A
Newfoundland and Labrador	15%	N/A
Northwest Territories	5%	0%
Nova Scotia	15%	N/A
Nunavut	5%	0%
Ontario	13%	N/A
Quebec	5%	9.975%
Prince Edward Island	15%	N/A
Saskatchewan	5%	6%
Yukon	5%	0%

3. Find the total cost of brake shoes for a car that sells for \$229.99.

Tax\$ = 15% of price
= 0.15 x 229.99
= 34.4985 or 34.50

↷

Total Cost = Price + Tax\$
= 229.99 + 34.50
= \$264.49

How to calculate Sales Tax

We pay sales tax on the price of the item, so to calculate the amount of sales tax, we take 15% of the price.

*Step 1) To find the amount of sales tax calculate
Tax \$ = 15% of the Price (using our previous knowledge)*

*Step 2) To find the total cost including tax.
Total cost = Price of item + Tax\$*

Example 1) A sweater sells for \$45.^{Price}

(a) find the amount of tax you have to pay.

=

$$\text{Tax \$} = 15\% \text{ of Price}$$

$$= 0.15 \times \$45.$$

$$= \$6.75$$

(b) find the total cost of the sweater.

$$\begin{aligned} \text{Cost w Tax} &= \text{Price} + \text{Tax \$} \\ &= \$45 + \$6.75 \\ &= \$51.75 \end{aligned}$$



Example 2)

Find the amount of tax and total cost of a book that cost \$15.

(a)

$$\begin{aligned}\text{Tax \$} &= 15\% \text{ of Price} \\ &= 0.15 \times \$15 \\ &= \$2.25\end{aligned}$$

$$\begin{aligned}\text{Cost w tax} &= \text{Price} + \text{tax \$} \\ &= \$15 + \$2.25 \\ &= \$17.25\end{aligned}$$

Sales Tax Sheet

$$\text{Tax \$} = 15\% \text{ of Price} \\ = 0.15 \times \underline{\hspace{2cm}}$$

*show all work on your own paper

1. Find the ~~amount of sales tax~~ required in NB, for the following items:

- (a) a computer ~~\$1499~~ (b) A Shirt is \$18.97
(c) a book \$ 24 (d) a coat \$ 79.95

2. (I) Find the amount of sales tax you are required to pay in NB?
(II) Find the total cost of the items.

(a) ~~a pair of sneakers: \$49.50~~

(c) a TV \$ 2457

(e) jeans \$62.99

(g) skates \$129.99

(i) sweatshirt \$39.99

~~(b) a pair of gloves \$ 12.39~~ $\text{Price} + \text{Tax \$}$

(d) a calculator \$ 15.65

(f) skateboard \$ 48.74

(h) a video game \$ 249.99

(j) a DVD \$25.87

Sales Tax Sheet

*show all work on your own paper

$$\text{Tax \$} = \frac{15\% \times \text{Price}}{0.15 \times \underline{\hspace{2cm}}}$$

1. Find the amount of sales tax required in NB, for the following items:

(a) a computer \$1499 (b) A CD \$18.97

(c) a book \$ 24 (d) a coat \$ 79.95

2. (A) Find the amount of sales tax you are required to pay in NB?

(B) Find the total cost of the items.

(a) a pair of sneakers \$ 49.50 (b) a pair of gloves \$ 12.39

(c) a TV \$ 2457 (d) a calculator \$ 15.65

(e) jeans \$62.99 (f) skateboard \$ 48.74

(g) skates \$129.99 (h) a PSP game \$ 249.99

(i) sweatshirt \$39.99 (j) a DVD \$25.87

$$\text{Tax \$} = \frac{15\% \times \text{Price}}{0.15 \times \underline{\hspace{2cm}}}$$

$$\text{B) Cost w tax} = \text{Price} + \text{Tax}$$