

Warm Up Grade 8



1. A jacket that regularly sells for $84.50 is discounted by 30%. What is the sale price?

$ Saved = 30% of Price

= 0.30 × $84.50

= $25.35

Sales price = Price − $ saved

= 84.50 − $25.35

= $59.15



Warm Up Grade 8



1. A jacket that regularly sells for $84.50 is discounted by 30%. What is the sale price?

Saved $ Discount = % x Price

= 30% x $84.50

= 0.30 x 84.50

= $25.35

Sales Price = Price − Saved $ Discount

= $84.50 − $25.35

= $59.15

Sheet 247

1. Disc 30% of 29.99
0.3 x 29.99
9
Sale Pr = 29.99 - 9
= 20.99

Estimate
≈ 30% of 30
= 9
Sale Price
30 - 9 = $21

2. a) 40% of 9.98
0.4 x 9.98
3.99

≈ 40% of 10
4

b) 96% of 5
0.96 x 5
4.80

≈ 100% of 5 = 5
96% of 5 = 4.80

c) 1% of 17.60
0.01 x 17.60
0.176 or 0.18
or 18¢

d) 10% of 19.95
0.1 x 19.95
= 1.995
= 2

≈ 10% of 20
2

e) 5% of 3.25
0.05 x 3.25
0.1625
= 0.16

≈ 5% of 3.00
10% of 3 = 0.30
5% of 3 = 0.15

f) 20% of 87.49
0.2 x 87.49
17.50

≈ 20% of 90
18

g) 29% of 1500
0.29 x 1500
435

≈ 30% of 1500
10% of 1500 = 150
30% of 1500 = 450

h) 33.3% of 15
0.333 x 15
4.995
= 5

≈ $\frac{1}{3}$ of 15 = 5

3. 50% of 7.99

$\approx$ 50% of 8 = 4

6 T-shirts $\rightarrow$ 6 x 4

= $24

To find Discount as a %

$$\%\ \text{difference} = \frac{\text{Difference}}{\text{Original Price}} \times 100$$

Step 1)

Diffence = Regular price - Sales Price

Difference = Big - small

Step 2) Write discount as a fraction of whole price

$$\frac{\text{Difference}}{\text{Original Price}}$$

Step 3) Now use the fraction to write a decimal and a percent $\frac{\text{Difference}}{\text{Original Price}} \times 100$

Ex1) The regular price of a coffee maker was $28 and the sales price is $19.60. What is the discount as a %?



Diff = Big - Small

= 28 − 19.60

= 8.40

$$\%\ \text{Diff} = \frac{\text{Diff}}{\text{original}} \times 100$$

$$= \frac{8.40}{28} \times 100$$

$$0.3 \times 100$$

$$= 30\ \%$$

Regular price $0.25

Sales Price $0.17

Find the % discounted?

Diff = Big - Small
= 0.25 - 0.17
= 0.08

$\%\ Diff = \frac{Diff}{Orig} \times 100$

$= \frac{0.08}{0.25} \times 100$

$= 0.32 \times 100$

32%

Reg	Sale	Diff Big - Small	Fract	Dec	%
0.25	0.17	0.08	$\frac{0.08}{0.25} = \frac{8}{25} = \frac{32}{100}$	0.32	32%

Test Tw days time

Friday

Test Outline

5 Multiple Choice

5 Short Response

1) Chart - Change Percents/Decimals/Fractions

2) Mentally explain 10%, 20%... 25%, 50%, 15%

Study Rule

3) Discount & Sales price

4) 15% Hst and Total Price

5) Mentally calculte the following(show what method you usec mental calculations. Must use 1%, 10%, 25%, 50% strategies class)

Homework Sheet 247 # 4-6 Chart #6

Frac
Diff
Dec

Save for tomorrow

WS 115 #1(use strategies 1%, 10%, 25%, 50%,..)

2

#3

#4

#5

17 % of 200

* 10% of 200 = 20

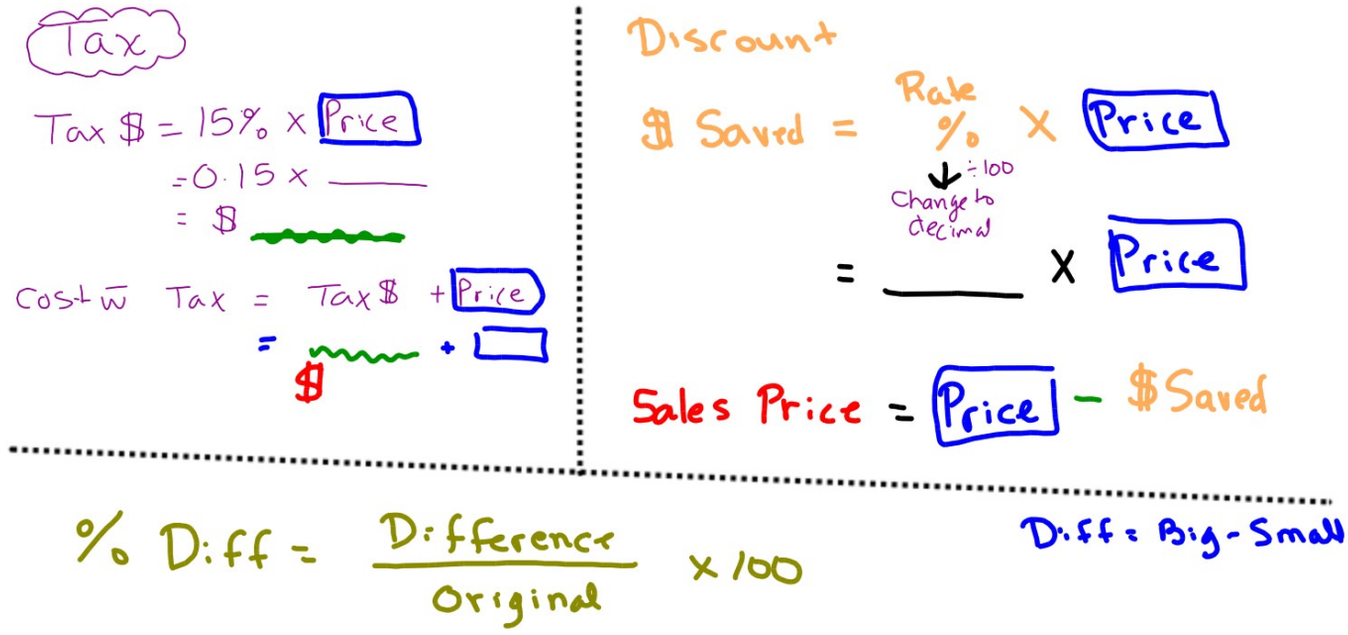
1% of 200 = 2

x7

x7

* 7% of 200 = 14

17% of 200 = 34



$$\%\ \text{Diff} = \frac{\text{Difference}}{\text{Original}} \times 100$$

Diff = Big - Small

Ex) Reg = $7.25
Sale = 5.00

$$= \frac{7.25 - 5.00}{7.25} \times 100$$

$$= \frac{2.25}{7.25} \times 100$$

$$= 0.31 \times 100$$

$$= 31\%$$

6a) Reg 0.25 Sale 0.17

Discount
Big-Sm
0.25 - 0.17
0.08

$\frac{0.08}{0.25} \times 100$
$= 0.32 \times 100$
32%.

Frac $\frac{32}{100} = \frac{16}{50} = \frac{8}{25}$

Dec 0.32

% 32

b) 2 1.50

Discount
$\frac{2 - 1.50}{2} \times 100$
$\frac{0.5}{2} \times 100$
0.25×100
25%.

$\frac{25}{100} = \frac{1}{4}$ 025 25

WS 115

1. Calculate.

a) 10% of 30 **b)** 20% of 50 **c)** 18% of 36 **d)** 67% of 112

2. The regular price of a radio is $60.00.
Find the sale price before taxes when the radio is on sale for:

a) 25% off **b)** 30% off **c)** 40% off



3. Find the sale price before taxes of each item.

a) coat: 55% off $90 b) shoes: 45% off $40 c) sweater: 30% off $50

4. Find the tip left by each customer at a restaurant.

a) Denis: 15% of $24.20 b) Molly: 20% of $56.50 c) Tudor: 10% of $32.70

5) ii) Find the cost of the item including TAX

a) bicycle: $129.00 b) DVD: $24.99 c) skateboard: $42.97



% Mentally

Ex) 10 % of 85 = 8.5

10 % of # is like ÷ by 10

↳ can be use to get 20%, 30%, 40%, 50%, 60%, ... by using multiply

Ex) 70% of 140 =>

↓ start with 10%

10% of 140 = 14

x7 ↳ ↳ x7

70% of 140 = 98

Use 10% to get 5% of a number

Ex) 5% of 126

start with 10% of 126 = 12.6

↓ To get 5% ÷2 ↓ ÷2

5% of 126 = 6.3

25% of a number is like divide # by 4

Ex) 25% of 120 = 30

(like 120÷4)

→ 75% of a number, first find 25% of # then multiply answer by 3 to get 75% of #

Ex) 75% of 240

↓ start with

25% of 240 = 60

x3 x3

75% of 240 = 180

Mentally % of # continued

50% of a number is like ÷ # by 2

Ex) 50% of 140 = 70
(like 140 ÷ 2)

1% of a number is like ÷ # by 100

Ex) 1% of 180 = 1.80

→ use this to get multiples 2%, 3%, 4% ...
by multiplying answer by factor

Ex) 7% of 2800 =
↓ start with 1% of 2800 = 28
(×7 ... ×7)
7% of 2800 = 196

15% of number → find 10% of number
then
5% of number
Then add answers

Ex) 15% of 200
↓ start with 10% of 200 = 20
(÷2 ... ÷2)
5% of 200 = 10
15% of 200 = (20 + 10) = 30

Tax $ = 15% × Price
↓ use decimal
= 0.15 × Price

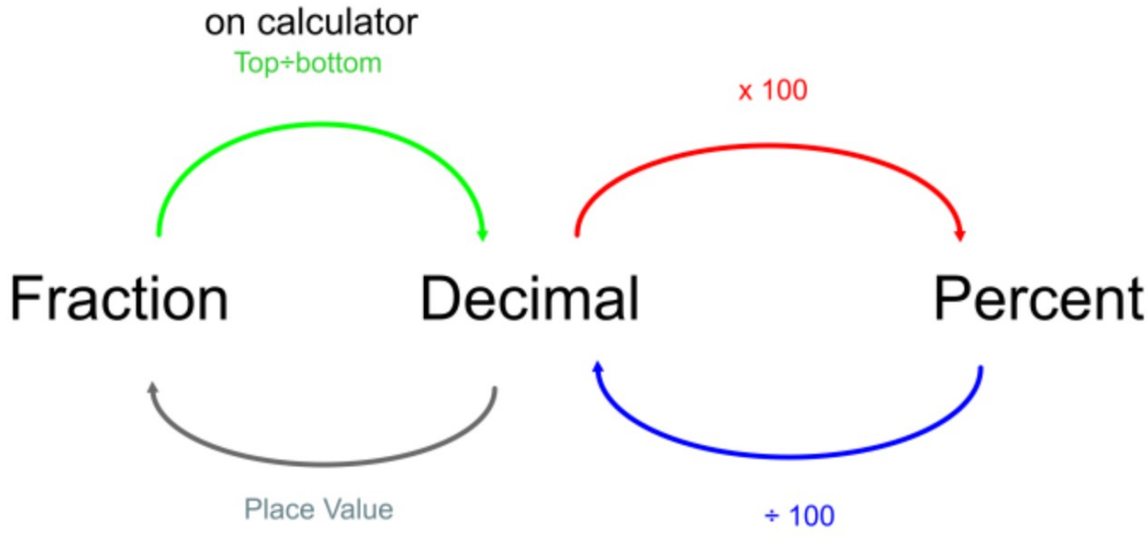
Cost with Tax = Price + Tax $

Save
Discount $ = % × Price
↓ use decimal
× Price

Sales Price = Price − Saved Discount $

$$\%\,Diff = \frac{Diff}{original} \times 100$$

Remember
Difference
= Big − Small



Ex1) $\frac{13}{1000}$ Top÷bottom = 0.013 x 100 = 1.3%

or take to equivalent fraction of over 100

$\frac{2}{25} \overset{x4}{} \quad \frac{8}{100}$ = 8% =0.08

Ex 2) dec 0.7

place value

(Stops in tenths place so over 10)

Fraction = $\frac{7}{10}$

x 100

= 70%

Percent

ex3) dec 0.0081 $\frac{81}{10\,000}$

stops 4 Places after decimal so bottom is 10 000