

Warm Up Grade 8

Date: Oct 29

Find the discount amount if a regular price of an item is $145 and it goes on sale for 20% off?

Save = 20% of Price
= 0.20 x 145
= $29.00

10% of 145 = $14.50
20% of 145 = 29.00

B) What is the sales price

↳ Price − $Saved
= 145 − 29
= $116

Worksheet 152

1. Calculate. (use strategies 1%, 10%, 25%, 50%,..)

a) 40% 550 **b)** 50% 486 **c)** 75% 400 **d)** 15% 360

10% of 550 = 55 (x4 / x4)

40% of 550 = 220

50% 486 = 243

25% of 400 = 100 (x3 / x3)

75% of 400 = 300

10% of 360 = 36

+ 5% of 360 = 18

15% of 360 = 54

2. The regular price of a garbage can is $114

Find the sale price before taxes when the ~~radio~~ can is on sale for:

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

A)

Discount = % x Price

= 25% x $114

= 0.25 x $114

= $28.50

Sale Price = Price - Discount $

= $114 - $28.50

= $85.50

B)

Discount = % x Price

= 30% x $114

= 0.30 x $114

= $34.2

Sale Price = Price - Discount $

= $114 - $34.2

= $79.80

c)

Discount = % x Price

= 40% x $114

= 0.40 x $114

= $45.60

Sale Price = Price - Discount $

= $114 - $45.6

= $68.40

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

a) Phone: 20% off $1520 **b)** Steak: 75% off $36

A)

Discount = % x Price

= 20% x $1520

= 0.20 x $1520

= $304

Sale Price = Price - Discount $

= $1520 - $304

= $1216

Discount = % x Price

= 75% x $36

= 0.75 x $36

= $27

Sale Price = Price - Discount $

= $36 - $27

= $9

4) Find the cost with tax

a) Stapler: $43.34 b) Picture: $91.30 c) car: $51 478

A) Tax $ = 15% x Price
= 0.15 x $43.34
= $6.50

Cost With tax = Price + Tax$
= $43.34 + $6.50
= $49.84

B) Tax $ = 15% x Price
= 0.15 x $91.30
= $13.70

Cost With tax = Price + Tax$
= $91.30 + $13.70
= $105

C) Tax $ = 15% x Price
= 0.15 x $51 478
= $7 721. 70

Cost With tax = Price + Tax$
= $51478 + $7721.70
= $59 199.70

5) Find the Discount amount (Amount saved for the following:

a) Regular Price = $56.00

35% off

Discount = % x Price
= 35% x $56
= 0.35 x $56
= $19.60

b) Regular Price = $84.20

12.5% off

Discount = % x Price
= 12.5% x $84.20
= 0.125 x $84.20
= $ 10.53

6) Fill in the missing values of following chart:

remember to reduce fractions to lowest terms

Fraction	Decimal	Percent
$\frac{14}{27}$ (top ÷ bottom)	0.518	51.8% (×100)
$\frac{15 \div 5}{10000 \div 5} = \frac{3}{2000}$	0.0015 (↑↑↑↑)	0.15%
$\frac{47}{100}$	0.47	47%
$\frac{9}{10}$	0.9 (↑)	90%
$\frac{213}{1000}$	0.213	21.3%

7) Mentally calculate using 1%, 5%, 10%, 25%, 50%, 100% strategies.

a) 10 % 723

72.3

b) 5% of 140

10% of 140 = 14 (÷2, ÷2)

5% of 140 = 7

c) 75% of 40

25% of 40 = 10 (×3, ×3)

75% of 40 = 30

d) 15% of 280

10% of 280 = 28 (÷2, ÷2)

+ 5% of 280 = ÷14

15% of 280 = 18 + 14 = 32

e) 30 % of 74

10% of 74 = 7.4 (×3, ×3)

30% of 74 = 22.2

Class / Homework

Test tomorrow

Worksheet is similar to the test

Answers are on next slides

Homework Solutions

Name: Answers

Grade 8

Unit 3 Part 1– Percent Test Review WS

Show work for all questions

1. Write the following as a Decimal and a percent.

1. $\frac{6}{5} \overset{\times 20}{=} \frac{120}{100}$ = 120 % = 1.20

2. $\frac{18}{20} \overset{\times 5}{=} \frac{90}{100}$ = 90% = 0.9

3. $\frac{75}{100} \overset{\div 25}{=} \frac{3}{4}$ = 75% = 0.75

4. $\frac{18}{48} = \frac{9}{24} = \frac{3}{8}$ Top ÷ Bott = 0.375 = 37.5%

5. $\frac{7}{9}$ = 0.7̄ = 77%

6. $\frac{16}{3}$ = 5.3̄ = 533%

2. The tax rate in NB is 15%. If a coat costs $145, what is the **total cost** of the coat?

Tax = 15% x Price = 0.15 x 145 = $21.75

Cost w tax = Price + Tax = $145 + $21.75 = $166.75

3. Raymod made 44 out of 50 on a test and Nancy made 18 out of 20 on a test. Show work on how you can determine who did better.

R ⇒ $\frac{44}{50} \overset{\times 2}{=} \frac{88}{100}$ = 88%

N ⇒ $\frac{18}{20} \overset{\times 5}{=} \frac{90}{100}$ = 90%

Nancy did better.

4. Estimate the following (Show work)

a) 8.9% of 164 ≈ 10% of 164 ≈ 16.4

b) 4.6 % of 240 ≈ 5%; 10% of 240 = 24; ÷2 → 5% of 240 = 12

c) 18% of 44; 20% of 44; 10% of 44 = 4.4; x2 → 20% of 44 = 8.8

d) 61% of 120 ≈ 60% of 120; 10% of 120 = 12; x6 → 60% of 120 = 72

You must show all work to obtain full value.

1. Complete the following chart:

Percent	Decimal	Fraction
14.7%	0.147	$\frac{147}{1000}$
55%	0.55	$\frac{55}{100} = \frac{11}{20}$
10%	0.10	$\frac{2}{20} = \frac{1}{10} = \frac{10}{100}$
13.6 %	0.136	$\frac{136}{1000} \overset{\div 2}{=} \frac{63}{500}$

#2 & #3 must include all formulas and calculation on paper (You can use the calculator but show your work)

2. A car regularly sells for $ 51 000. It is on sale for 30% off.

(a) Calculate the amount of discount.

Discount $ = % × Price
= 30% × 51000
= 0.30 × 51 000
= $15 300

(b) Calculate the sale price. (No Tax)

Sales Price = Price − Discount
= $51000 − $15300
= $ 35700

3. For each item below calculate the tax and the total cost with tax. (Remember HST for NB is 15%)

i) Find the amount of tax that will be paid.

ii) What is the total cost With tax?

a) An Air fryer $229



b)



$699.99

Tax = 15% of Price
= 0.15 × $229
= $34.35

Cost w tax = Price + Tax
= $229 + $34.35
= $263.35

Tax = 15% of Price
= 0.15 × $699.99
= $105.00

Cost w tax = Price + Tax
= $699.99 + $105.00
= $804.99

4. **Mentally** calculate the following (**show what method you used for the mental calculation. MUST use 1%, 10%, 25%, 50% strategies taught in class**)

(a) 15% of 88

10% of 88 = 8.8
+ 5% of 88 = 4.4
15% of 88 = 13.2

(b) 10% of 220
= 22

(c) 70% of 20.8

10% of 20.8 = 2.08 (×7)
70% of 20.8 = 14.56

(d) 15% of 230

10% of 230 = 23
+ 5% of 230 = 11.5
15% of 230 = 34.5

e) 25% of 160
= 40

d) 40% of 230

10% of 230 = 23 (×4)
40% of 230 = 92

e) 8% of 600

1% of 600 = 6 (×8)
8% of 600 = 48

f) 13% of 700

10% of 700 = 70
1% of 700 = 7 (×3)
3% of 700 = 21
13% of 700 = 91