Warm Up Grade 8

Use Mental Math (Without Calculators)

30% of 250

10% of 250 = 25

x3 x3

30% of 250 = 75

24% of 3600

10% of 3600 = 360

x2 x2

20% of 3600 = 720

1% of 3600 = 36

x4 x4

4% of 3600 = 144

24% of 3600 = 864

Use a calculator for the following

21.5% of 1800

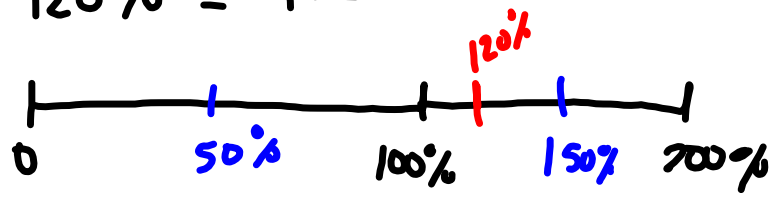
Change % to dec

0.215 X 1800

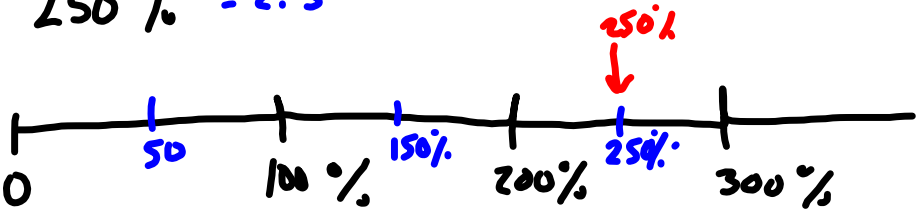
387

Pg 246

5) a) 120% = 1.2

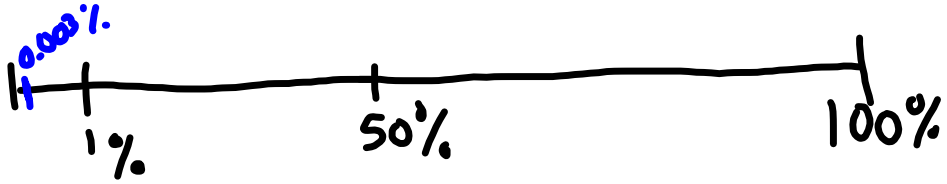


b) 250% = 2.5



c) 475 = 4.75

d) 0.3 % = 0.003



e) 0.53 % 0.0053

f) 0.75 % = 0.0075

#5,6,10, 11

	Percent	Fraction
6) a) 1.7	170%	$\frac{170}{100} = \frac{17}{10} = 1\frac{7}{10}$
b) 3.3	330%	$\frac{330}{100} = \frac{33}{10} = 3\frac{3}{10}$
c) 0.003	0.3%	$\frac{3}{1000} =$
d) 0.0056	0.56%	$\frac{56}{10000} = \frac{28}{5000} = \frac{14}{2500} = \frac{7}{1250}$

10) i) $\frac{1}{3} = 0.\overline{33} = 33.\overline{3}\%$

ii) $\frac{2}{3} = 0.\overline{6} = 66.\overline{6}\%$

iii) $\frac{3}{3} = 1 = 100\%$

iv) $\frac{4}{3} = 1.\overline{3} = 133.3\%$

v) $\frac{5}{3} = 1.\overline{6} = 166.\overline{6}\%$

vi) $\frac{6}{3} = 2 = 200\%$

b) As the numerator increases by 1 the percent increases by $33.\overline{3}\%$

c) i) $\frac{7}{3} = 2\frac{1}{3} = 2.\overline{3} = 233.\overline{3}\%$

ii) $\frac{8}{3} = 2\frac{2}{3} = 2.\overline{6} = 266.\overline{6}\%$

iii) $\frac{9}{3} = 3 = 300\%$

iv) $\frac{10}{3} = 3\frac{1}{3} = 3.\overline{3} = 333.\overline{3}\%$

v) $\frac{11}{3} = 3\frac{2}{3} = 3.\overline{6} = 366.6\%$

vi) $\frac{12}{3} = 4 = 400\%$

11) a i) 200 % of 360

100% of 360 = 360 (×2)

200% of 360 = 720 (×2)

ii) 20 % of 360

10% of 360 = 36 (×2)

20% of 360 = 72 (×2)

iii) 2 % of 360 =

1 % of 360 = 3.6 (×2)

2% of 360 = 7.2 (×2)

iv) 0.2 % of 360

1 % of 360 = 3.6 (×2)

2% of 360 = 7.2 (×2)

0.2% of 360 = 0.72 (÷10)

b) The digit moves one place to the right each time you decrease your percent by a factor of 10

c) 2000 % of 360 = 720

100% of 360 = 360 (×10)

1000% of 360 = 3600 (×2)

2000% of 360 = 7200

i.) 0.02 % of 360

2 % of 360 = 7.2 (÷100) from above

0.02% of 360 = 0.072

Percents greater than 100% are used by store owners to calculate the prices of items they sell.

A store has to make a profit; that is, to sell goods for more than the goods cost to buy.

A store manager buys merchandise from a supplier. The price the manager pays is called the *cost* price. The manager *marks up* the cost price to arrive at the *selling price* for the customer. The markup is the *profit*.

Cost price + Profit = Selling price

The cost price of a winter coat is $80.
The selling price of the coat is 230% of the cost price.
What is the selling price of the coat?
Illustrate the answer with a number line.

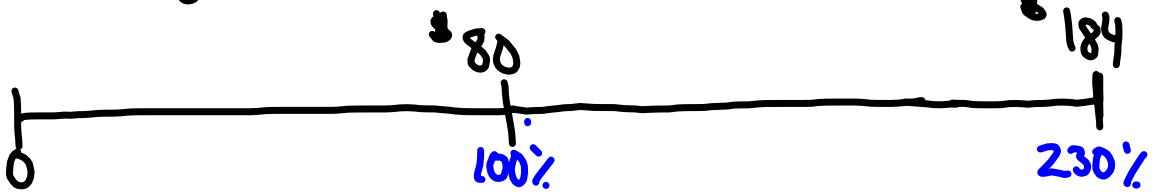
Sell = 230% of Cost

Change to Dec

= 2.3 × $80

= $184

The Selling Price of the coat is $184.



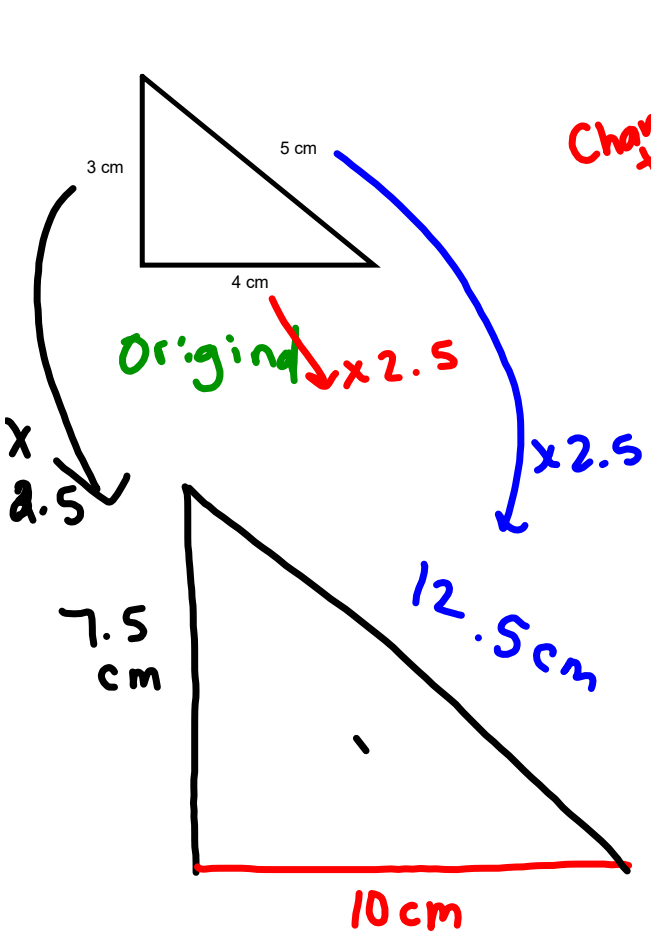
hint change % to decimal

Can use calculator but MUST show work

In 2004, the population of First Nations people living on reserves in Alberta
was 58 782.
About 0.28% of these people belonged to the Mikisew Cree band.
a) About how many people belonged to the Mikisew Cree band?
b) Estimate to check the answer is reasonable.

Mikisew = 0.28% of These People
↓ Change to decimal ↓
$= 0.0028 \times 58782$
$= 164.58$
≈ 164
About 164 people belong to Mikisew Cree band.

This shape represents 100%. Draw a shape that represents 250%.

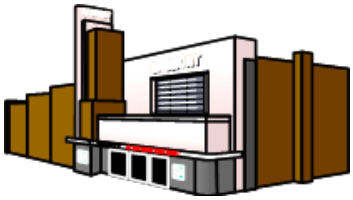


250% of original

Change to decimal

2.5 X original

At the movie theatre, 1550 people attended in one week.
The next week the attendance increased by 125%.
a) How many people went to the movie theatre the second week?
b) Estimate to check your answer is reasonable.



Week 2 = 125% of W1

↓

$= 1.25 \times 1550$

$= 1937.5$

≈ 1937

The second week 1937 people attended the movies.

Class/Homework

% of Total

Page 246 #7, 12, a c
Page 247 #~~14~~, 15, 16, 17 → hint G = % of Boys
find # Girls

% of Pop

Fract → Girls Attend / total G

Show all work

= Dec

= %

pg. 240 #16-19
pg. 245 #1,2,5,6,7