Warm Up Grade 8

Feb. __, 2017

Use Mental Math

30% of 250

See next page

24% of 3600

Use a calculator for the following

21.5% of 1800

Change to a decimal (÷ by 100)

0.215 X 1800

387

30 % of 250

10 % of 250 = 25 (x3)

x3 → 30 % of 250 = 75

24 % of 3600

10 % of 3600 = 360 (x2)

x2 → 20 % of 360 = 720

1 % of 3600 = 36 (x4)

x4 → 4 % of 3600 = 144

24 % = 20 % + 4 %

= 720 + 144

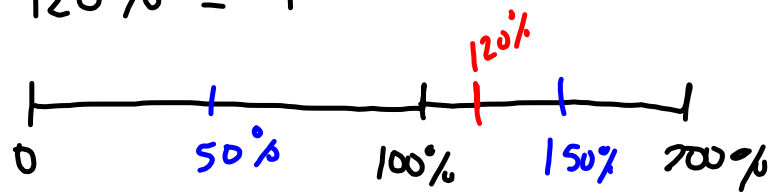
24 % of 3600 = 864

25 % of 3600 = 900

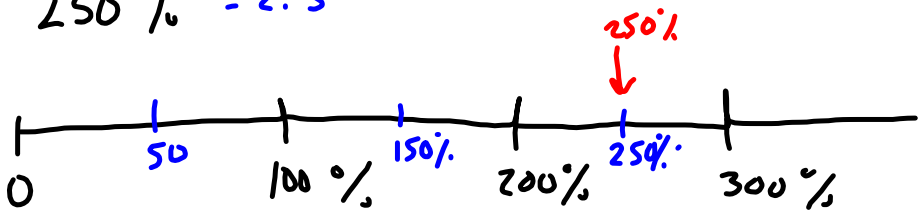
1 % of 3600 =

Pg 246

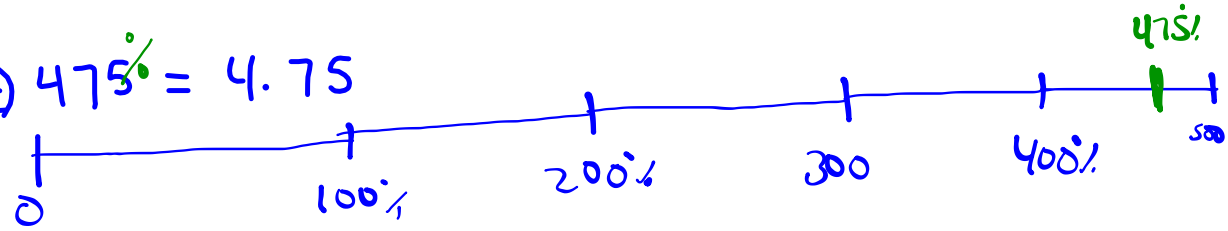
5) a) 120% = 1.2



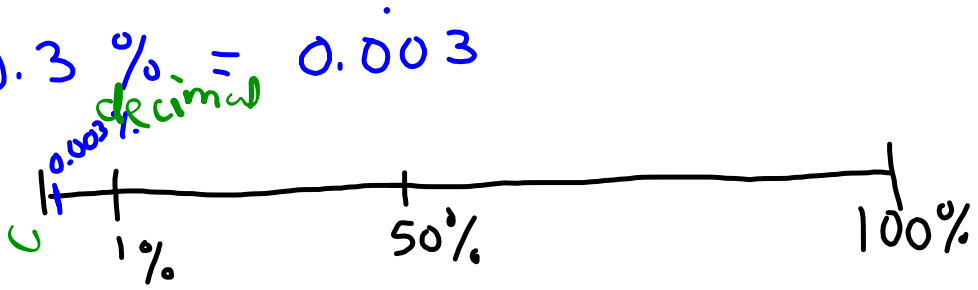
b) 250% = 2.5



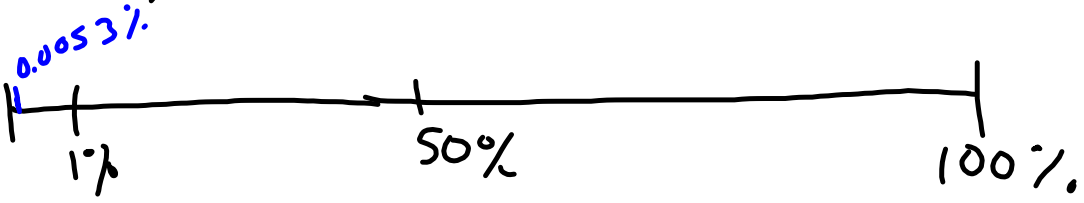
c) 475% = 4.75



d) 0.3% = 0.003



e) 0.53% 0.0053



f) 0.75% = 0.0075

#5,6,10, 11

		×100 → 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)

(×2) 200% of 360 = 720

ii) 20 % of 360

10 % of 360 = 36 (×2)

(×2) 20% of 360 = 72

iii) 2 % of 360 =

1 % of 360 = 3.6 (×2)

(×2) 2% of 360 = 7.2

iv) 0.2 % of 360

1 % of 360 = 3.6 (×2)

2% of 360 = 7.2 (÷10)

(÷10) 0.2% of 360 = 0.72

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)

(×2) 2000% of 360 = 7200

i.) 0.02 % of 360

2 % of 360 = 7.2 from above (÷100)

(÷100) 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.

hint change % to decimal

Can use calculator but
MUST show work

230% of Cost

230% of $80

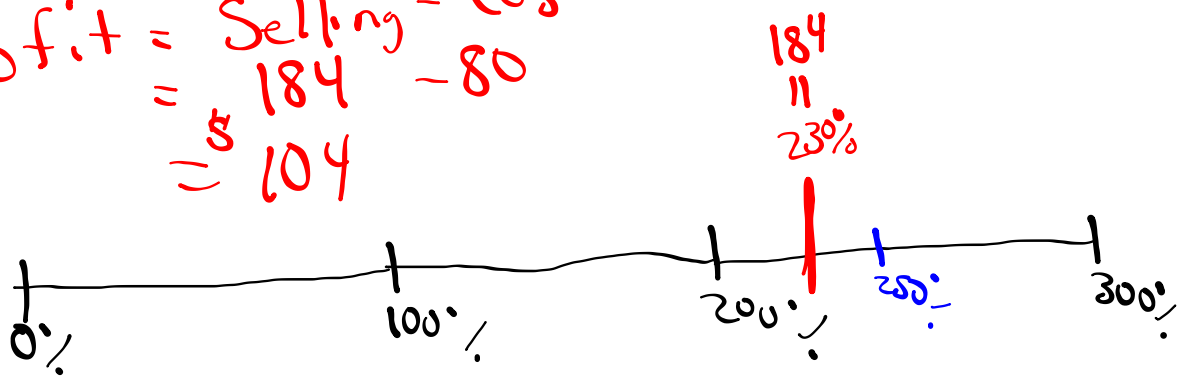
change to decimal

2.30 X $80

$184

Selling Price is $184

Profit = Selling - Cost
= 184 - 80
= $104



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.

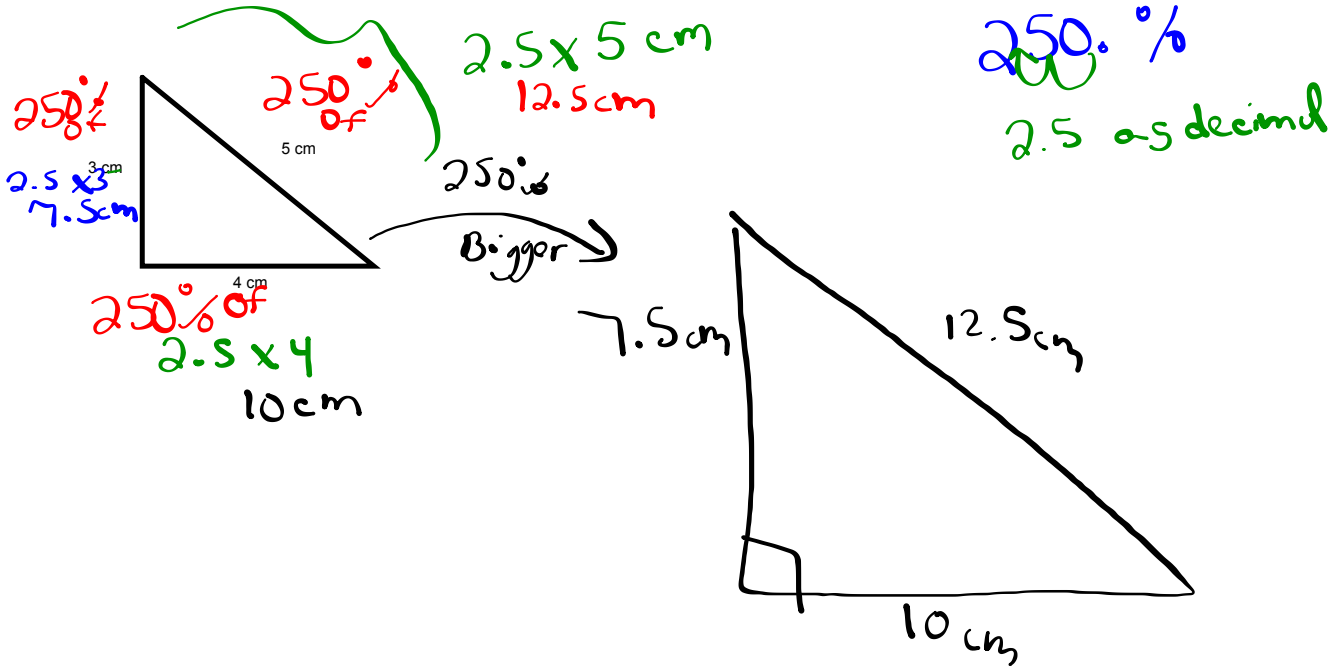
0.28% of Population
change to decimal (÷ 100)

0.0028×58782

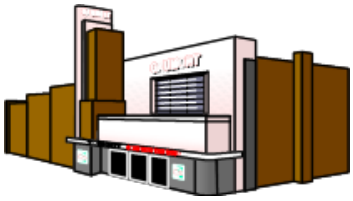
164.5896
≈ 165 people

b) 1% of $58782 \approx 588$
$\div 4$
$\div 4$
$\approx 0.25\%$ of $58782 \approx 172$

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



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.



a) 125% of 1550

1.25 x 1550
1937.5
≈1938

100% + 25% = 125%

100% of 1550 = 1550

25% of 1550 = 392...

Class/Homework

Use calculato
Show work

Page 246 #7, 12, bonus
Page 247 #14, 15, ~~16~~, 17

14a) 5% of 2600
0.05 x 2600 = 130 cam
Year 1 pop = 2600 + 130 Show all work
= 2730

15% of Year 1 pop
0.15 x 2730
409.5

Year 2 pop = 2730 + 409.5
= 3139.5

b)
0.20 x 2600 = 520

2600 + 520

= 3120

c) Answers are different
→ Jermy only based on original pop of 2600
When Juan broke it up with Year 1 increase
Year 2 increas

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