PENANG SANGAM HIGH SCHOOL

WEEK 13 - NOTES, EXAMPLES AND EXERCISES

STRAND :4 MEASUREMENT SUB STRAND: 4.1 MONEY

LESSON OBJECTIVE: Students should be able to:

Simplify ratios and apply to decrease quantities.

Decreasing in a Given Ratio

To Decrease a quantity in the Ratio of "a:b" we multiply the quantity by the fraction "a/b"

Remember that "b" stands for "bigger"

"b" must be a bigger number than "a", or else no decrease will occur.

Eg. We need to multiply by Fractions that are < 1 like 1/4, 2/3, 1/2, 3/4, 4/5, 7/8 etc to do Decreases.

Example 1:

A decrease in the ratio 3:4 implies that:

New quantity: Old quantity = 3:4

Let the new quantity be x.

$$\therefore x:32=3:4$$

$$\frac{x}{32} = \frac{3}{4}$$

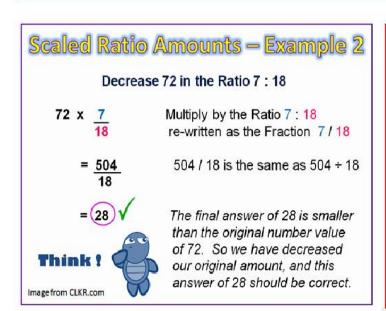
(Multiply both sides by 32)

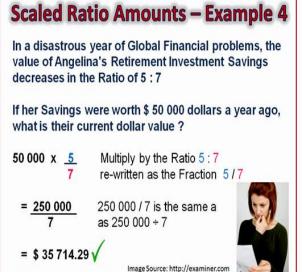
$$32 \times \frac{x}{32} = 32 \times \frac{3}{4}$$

$$\left\{ \frac{\frac{32}{32}}{1} \times \frac{3}{4} = \frac{8 \times 3}{1 \times 1} = \frac{24}{1} = 24 \right\}$$

$$x = 24$$

So, the new quantity is 24.





Exercise

2.	Decrease \$25 in the ratio 6:5
3.	Decrease 12 in the ratio 1:3
4.	Decrease 18 metres in the ratio:
	(a) 2:1
	(b) 3:2
	(c) 5:4

1. Decrease 72 in the ratio 7:18