

Task 1 - Complete the table below

(The first two have been done for you)

Calculation	Multiplier
Increase by 10%	1.1
Decrease by 8%	0.92
Decrease by 72%	
Increase by 9%	
	1.37
	0.71
15% off in a sale	
Salary rose by 31%	
	1.01
68% of its original value	
Reduction of 21.5%	
A rise of 22.4%	

Task 2-Working forwards!

- (1) Increase £10 by 15%
- (2) Decrease 127 by 11%
- (3) John has a wage increase of 20%. He **originally** earned £320 a week. How much does he earn now?
- (4) A toaster has 18% off in a sale. Given that the toaster was £75 **before** the sale, find its new price.

Task 3-Working backwards! Reverse %

- (1) Bill has a wage increase of 10%. He **now** earns £359.70 a week. What did he earn before?
- (2) Kelly buys a jumper in a sale. **After** a 15% reduction the price is £48.45. What was it before the sale?
- (3) The population of an island increased 16% to 2494. What was the population before increase?
- (4) The mass of a rock is reduced by 22%. The new mass is 193.44g. What was the original mass of the rock?
- (5) VAT is charged at 20%. Gina buys a new car with VAT added and pays £21960. She can claim her VAT back. How much can she claim back?
- (6) In a restaurant service is charged at 8.5%. Gemma buys a salad for £6.51. How much would have she paid if the service charge had not been added?
- (7) Samuel bought a fridge in a '30% off sale'. Given that he paid £384.30, find its original price before the sale.
- (8) John was told to increase his daily exercise by $\frac{1}{4}$. Given that he now does 56 minutes a day, show that he originally did less than $\frac{3}{4}$ of an hour a day.
- (9) Sue was told to decrease her daily calorie intake by 15%. Given that she is now eating less than 1600 calories a day, find the maximum number she was originally eating. Give your answer to the nearest calorie.
- (10) (a) Write down the multiplier for 'a reduction of 17%'
(b) Given that when x is reduced by 17% the answer is y , express x in terms of y .

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