M2 - 29 days to go!

10 **(a)** Bikes normally cost £b each.

In a sale they are each reduced by £30

Write an expression for the cost of a bike in the sale.

Answer $b - 30$ [1]

(b) Cycling helmets normally cost £h each.

In a sale they are each reduced to half-price. $h/2$

Write an expression for the cost of a cycling helmet in the sale.

Answer $h/2$ [1]

(c) Write an expression for the total cost of 4 bikes and 4 cycling helmets in the sale.

$4(b-30)$

$4b-120$

$4 \times \frac{h}{2}$

$2h$

Answer $4b-120+2h$ [2]

or $4(b-30)+2h$

22 Last year a company spent a total of £2400 on advertising.

This year they spent £2796

What was the percentage increase in their spending on advertising?

Increase £396

$\%\ \text{increase} = \frac{\text{increase}}{\text{original}}$

$\frac{396}{2400} = 0.165$

Answer 16.5 % [3]

23 Best Bank offers a 3 year investment account with a fixed compound interest rate of 1.75% per annum.

Mr Lucas invests £8000 in this account.

What is the value of his investment at the end of the 3 year period?

Grade C/C* question.

8000

1st year 1·75% of 8000

= 0·0175 × 8000

= 140

8000 + 140 = 8000+140

= 8140

2nd year 1·75% of 8140

= 0·0175 × 8140

= 142·45

8000 + 140 + 142.45

Answer £ 8427.39 [4]

3rd year

1·75% of 8282·45

= 0·0175 × 8282·45

= 144·94 (2d.p.)

lots of marks

8000 + 140 + 142.45 + 144·94

= 8427·39