

Percentages

① What is 5% of 300?

"of" = X

$$5\% = \frac{5}{100} = 0.05$$

$$= (300)(5\%) = 15$$

② Shoes were €125, now on sale with 30% off?

You pay 70%



$$\begin{aligned} 70\% \text{ of } €125 \\ &= (125)(70\%) \\ &= €87.50 \end{aligned}$$

③ Excluding Tax @ 21.5% a car costs €20,000

You pay 121.5%



$$\begin{aligned} &= (20000)(121.5\%) \\ &= €24,300 \end{aligned}$$

11. In a sale, the marked prices are reduced by 30%.

- (i) Calculate the sale price of a jacket if the marked price is €350.
- (ii) Find the marked price of a dress if the sale price is €168.

(i)
You pay 70%

$$\begin{aligned} (350)(70\%) &= €245 \\ \text{MARKED PRICE} \times 70\% &= \text{SALE PRICE} \end{aligned}$$

(ii)


$$\begin{aligned} (?)(70\%) &= €168 \\ \text{MARKED PRICE} \times 70\% &= \text{SALE PRICE} \end{aligned}$$

$$\text{MARKED PRICE} = \frac{\text{SALE PRICE}}{\text{PERCENTAGE TO PAY}}$$

$$\text{MARKED PRICE} = \frac{168}{70\%} = €240$$

Check: $240(70\%) = 168$

13. By selling a jacket for €416, a store makes a profit of 30%.
- (i) Find the cost price of the jacket.
 - (ii) If the jacket is reduced by 10% in a sale, calculate the percentage profit the store now has on the cost price.

<p>(i)</p> <p style="color: red;">Selling Price = €416 Which is 130%</p> <p style="color: green;">Check: $(320)(130\%) = 416$</p>	<p style="color: blue;">Profit = SELLING PRICE - COST</p> <p style="color: blue;">Selling Price = Profit + Cost = 30% + 100% = 130%</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr> <th style="border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;">%</th> <th style="border-bottom: 1px solid black; padding: 5px;">€</th> </tr> </thead> <tbody> <tr> <td style="border-right: 1px solid black; padding: 5px; text-align: center;">130</td> <td style="padding: 5px; text-align: center;">416</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 5px; text-align: center;">1</td> <td style="padding: 5px; text-align: center;">3.2</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 5px; text-align: center;">100</td> <td style="padding: 5px; text-align: center;">320</td> </tr> </tbody> </table>	%	€	130	416	1	3.2	100	320
%	€								
130	416								
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<p>(ii) pay 90%</p> <div style="text-align: center; margin-top: 10px;">  </div>	<p style="color: blue;">Sale Price = $(416)(90\%) = €374.40$</p> <p style="color: red;">Profit = $374.40 - 320 = €54.40$</p> <p style="color: blue;">% Profit = $\frac{\text{Profit}}{\text{Cost}} = \frac{54.40}{320} = 17\%$</p>								