



QT - Reverse Percentage

1. In a sale, normal prices are reduced by 12%. The sale price of a digital camera is £132.88. Work out the normal price of the camera.

$$\begin{aligned} 132.88 &= 88\% \text{ of the Normal} \\ 132.88 &= 0.88N \\ \div 0.88 & \quad \quad \quad \div 0.88 \\ 151 &= N \end{aligned} \quad \text{Normal } \underline{\underline{£151}}$$

2. A house is valued at £298 000 after an 8% increase in property prices. Calculate the value of the house before the increase. Give your answer to the nearest £.

$$\begin{aligned} 298,000 &= 108\% \text{ of property price before increase} \\ 298,000 &= 1.08P \\ \div 1.08 & \quad \quad \quad \div 1.08 \\ 275,925.93 &= P \end{aligned} \quad \underline{\underline{£275,926}}$$

3. In a sale, normal prices are reduced by 35%. The sale price of a TV is £428.35. Work out the normal price of the TV.

$$\begin{aligned} 428.35 &= 65\% \text{ of the normal price} \\ 428.35 &= 0.65N \\ \div 0.65 & \quad \quad \quad \div 0.65 \\ 659 &= N \end{aligned} \quad \text{Normal Price } \underline{\underline{£659}}$$

4. Bill's weekly pay this year is £471.50. This is 15% more than his weekly pay last year. Alex says 'That means Bill's weekly pay last year was £400.' Alex is wrong. Explain why.

$$\begin{aligned} 471.50 &= 115\% \text{ of last year's pay} \\ 471.50 &= 1.15P \\ \div 1.15 & \quad \quad \quad \div 1.15 \\ 410 &= P \end{aligned} \quad \text{Last year's } \underline{\underline{£410pw}}$$