Timester Challenge

Percentage Increase and Decrease

Increase 2400 by 36%.

Bronze

Jon's salary is £45,200. His salary increased by 3%. Work out Jon's new salary.

Bronze

Jake buys a watch in a sale. The normal price of the watch is reduced by 20%. The normal price is £89.50. Work out the sale price of the watch.

Bronze

Steph sells shoes. She sells each pair of shoes for £120 plus VAT at 17.5%.
She sells 250 pairs of shoes in a week.
How much money does Steph make?

Silver

Katie's salary is £27,500 per annum.
Katie is offered two options, which option should she choose.
Option A : A 2% increase in her salary in line with inflation.
Option B: £45 extra a month.

Silver

In a shop sale, the normal price of a pair of shoes is £68. The shop has a sale.
In week 1 of the sale the shoes are reduced by 10%. In week 2 of the sale the shoes are reduced by a further 15%.
Maria has £50. Does Maria have enough money to buy the shoes?

☐ Yes ☐ No

Gold

Timester Challenge

Percentage Increase and Decrease

Answers

Increase 2400 by 36%.

$$1.36 \times 2400 = 3{,}264$$

Bronze

Jon's salary is £45,200. His salary increased by 3%. Work out Jon's new salary.

$$1.03 \times 45200 = £46{,}556$$

Bronze

Jake buys a watch in a sale. The normal price of the watch is reduced by 20%. The normal price is £89.50. Work out the sale price of the watch.

$$0.8 \times 89.50 = £71.60$$

Bronze

Steph sells shoes. She sells each pair of shoes for £120 plus VAT at 17.5%.
She sells 250 pairs of shoes in a week.
How much money does Steph make?

$$1.175 \times 120 = £141 \text{ per pair of shoes}$$

$$141 \times 250 = £35{,}250 \text{ per week}$$

Silver

Katie's salary is £27,500 per annum.
Katie is offered two options, which option should she choose.
Option A : A 2% increase in her salary in line with inflation.
Option B: £45 extra a month.

$$\text{A: } 27500 \times 1.02 = £28{,}050$$
$$\text{B: } 27500 + (12 \times 45) = £28{,}040$$

Option A is better by £5.

Silver

In a shop sale, the normal price of a pair of shoes is £68. The shop has a sale.
In week 1 of the sale the shoes are reduced by 10%. In week 2 of the sale the shoes are reduced by a further 15%.
Maria has £50. Does Maria have enough money to buy the shoes?

☐ Yes ☑ No

$$0.9 \times 68 = £61.20$$
$$0.85 \times 61.2 = £52.02$$

No Maria is £2.02 short, so she cannot afford the shoes.

Gold