

Weekly Question (7 Feb)

For every 24 cans of soda drink purchased, a discount of 10% will be given. Each can of soda drink costs \$1.20. Adrian bought some cans of soda drink and paid the cashier using two fifty-dollar notes. If he was given a change of 64 cents, how many cans of soda drink did Adrian buy?

Solution:

$$1 \text{ can} \rightarrow \$1.20$$

$$24 \text{ cans} \rightarrow \$1.20 \times 24 = \$28.80$$

$$100\% - 10\% = 90\%$$

$$\text{Discounted (24 cans)} \rightarrow \frac{90}{100} \times \$28.80 = \$25.92 \text{ (1 set)}$$

$$\text{Cost of soda drinks Adrian bought} \rightarrow \$50 \times 2 - \$0.64 = \$99.36$$

$$\text{Number of sets} \rightarrow \$99.36 \div \$25.92 = 3 \text{ (sets)} \quad \text{R } \$21.60$$

$$\$25.92 \times 3 = \$77.76 \rightarrow \text{R} = \$99.36 - \$77.76 = \$21.60$$

$$\$21.60 \div \$1.20 = 18 \text{ cans (remainder)}$$

$$3 \text{ sets of 24 cans} + 18 \text{ cans} \rightarrow 72 + 18 = 90$$

Ans: 90 cans