

During a sale, colour pencils were being sold in packs of 24 each and crayons in packs of 32 each. If you want full packs of both and the same number of pencils and crayons, how many of each would you need to buy?

Solution:

The number of pencils and crayons is the HCF of 24 and 32.

By Euclid's Division Algorithm

$$32 = 24 \times 1 + 8$$

$$24 = 8 \times 3 + 0$$

$$\text{HCF} = 8$$

$$\text{Number of packs of colour pencils} = \frac{24}{8} = 3$$

$$\text{Number of packs of crayons} = \frac{32}{8} = 4$$