

## Weekly Questions (17.05.13)

Miss Lee wants to buy some stationery for her class. She can either spend all her on 18 pens or 42 pencils. If each pencil costs \$1.60 less than each pen, find the amount of money Miss Lee has.

### Solution:

#### **Method 1**

Let 1 unit be the cost of a pencil

1 pen  $\rightarrow$  1 unit + \$1.60

18 pens  $\rightarrow$  18 units + \$1.60  $\times$  18 = 18 units + \$28.80

18 units + \$28.80  $\rightarrow$  42 units

42 – 18 = 24 units

24 units  $\rightarrow$  \$28.80

1 unit  $\rightarrow$  \$1.20

Cost of 42 pencils  $\rightarrow$  \$1.20  $\times$  42 = **\$50.40**

**Ans: Miss Lee has \$50.40.**

#### **Method 2**

Cost of 18 pens  $\rightarrow$  Cost of 42 pencils

Ratio of pens to pencils  $\rightarrow$  18 : 42 = 3 : 7 (Number of Items)

Ratio of cost of 1 pen to 1 pencil  $\rightarrow$  7 : 3 (Cost per item)

7 – 3 = 4 units (difference in cost per item)

4 units  $\rightarrow$  \$1.60

1 unit  $\rightarrow$  \$0.40

7 units  $\rightarrow$  \$2.80 (1 pen)

18 pens  $\rightarrow$  \$2.80  $\times$  18 = **\$50.40**

**Ans: Miss Lee has \$50.40.**