Unitary Method

Grade 4

Unitary Method

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a.k.a Method of Ones

Q. The cost of 1 mango is ₹ 72. Find the cost of 3249 mangoes

⇒ cost of 1 mango → ₹72

cost of 3249 mangoes = 3249 × 72

= ₹2,33,928

To get more value, we multiply
To get less value, we divide.

Q. Cost of 17 books is ₹ 1445. Find the cost of 1 book.

Sol: Cost of 17 books = ₹ 1445

Cost of 1 book = ₹ (1445 ÷ 17)

$$17\overline{)1445}$$

= ₹ 85

Q. Cost of 8 cycles is ₹ 13480. Find the cost of 13 cycles.

⇒ First find the the cost of 1 cycle.
Then, find the cost of 13 cycles.

Sol: Cost of 8 cycles = ₹ 13480

∴ Cost of 1 cycle = ₹ (13480 ÷ 8)
= ₹ 1685

Cost of 13 cycles = ₹ (13 × cost of 1 cycle.)
= ₹ (13 × 1685)
= ₹ 21905

Q. A car runs 234 km on 18 litres of petrol. How many kilometers it can run on 43 litres of petrol?

Sol^n:

Distance covered on 18 litres = 234 km

Distance covered on 1 litres = (234 ÷ 18) km.

= 13 km

Distance covered on 43 litres = (13 × 43) km

= 559 km

Q. A worker earned ₹ 1080 in 8 days. How much did he earn in 3 days?

Sol:

In 8 days worker earns = ₹ 1080

In 1 day he earns = ₹ (1080 ÷ 8)

= ₹ 135

In 3 days he earns = ₹ (135 × 3)

= ₹ 405

Q. A shopkeeper sold 136 almirahs for ₹ 3784 each. From the money so received, he bought 34 refrigerators. What is the cost of each refrigerator?

Sol:

Cost of 1 almirah = ₹ 3784

Cost of 136 almirah = ₹ (3784 × 136)

= ₹ 514624

200

```
  2 2 1
  4 5 2
  3 7 8 4
×   1 3 6
---------
  2 2 7 0 4
1 1 3 5 2 0
        0 0
```

Cost of 34 refrigerators = ₹ 514624

Cost of 1 refrigerator = ₹ (514624 ÷ 34)

= ₹ 15136

Q A factory produces 6816 pens in 12 days. How many pens does it produce in three weeks)=

Sol:

1 week = 7 days.

3 Weeks = 3×7 days = 21 days.

In 12 days factory produces = 6816 pens

In 1 day factory produces = $(6816 \div 12)$ pens.

= 568 pens

In 21 days factory produces = (568×21) pens.

= 11928 pens

$$\begin{array}{r} 1\ 1 \\ 5\ 6\ 8 \\ \times\quad 2\ 1 \\ \hline 5\ 6\ 8 \\ 1\ 1\ 3\ 6\ 0 \\ \hline 1\ 1\ 9\ 2\ 8 \end{array}$$

Q. The annual rent of a house is ₹ 58500. What is its rent for 17 months.

Sol: annual means a year = 12 month.

Rent for 12 months = ₹ 58500.

Rent for 1 month = ₹ (58500 ÷ 12)

= ₹ 4875

Rent for 17 months = ₹ (4875 × 17)

= ₹ 82875

Q. A factory makes 42000 toys in a week

In 1 day it makes 6000 toys.

In 18 days it makes 108000 toys.

If 13 buses can carry 715 passengers, how many passengers can be carried in 25 busses?

Sol:

No. of passengers in 13 buses = 715

No. of passengers in 1 bus = $\frac{715}{13} = 55$

$$13 \overline{)\,715}$$

No. of passengers in 25 buses = 55×25

$$= 1375$$

$$\begin{array}{r} {}^{1}{}^{2} \\ 55 \\ \times\ 25 \\ \hline 275 \\ 1100 \\ \hline 1375 \end{array}$$

Q. There are 2275 trees in 25 rows. How many trees are there in 72 rows?

Sol:

No. of trees in 25 rows = 2275

No. of trees in 1 row = $2275 \div 25$

$= 91$

$$25 \overline{)2275} \quad 91, \quad -225$$

No. of trees in 72 rows = 91×72

$= 6552$

Q. Cost of a train ticket is ₹ 586. Find the cost of 52 tickets.

Sol:

Cost of 1 ticket = ₹ 586

Cost of 52 tickets = ₹ (586 × 52)

= ₹ 30472.

Q.

Q. The price of 1 dozen oranges is ₹96. Find the price of 10 oranges.

Sol: 1 dozen = **12**

Cost of 12 oranges = ₹96

Cost of 1 orange = ₹(96 ÷ 12)

= ₹8

Cost of 10 oranges = ₹(8 × 10) = **₹80**.

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Q. If the cost of 15 watchs is ₹ 5250, what is the cost of 38 such watches.

Sol:

cost of 15 watches = ₹ 5250

cost of 1 watch = ₹ (5250 ÷ 15)

= ₹ 350

$$
\begin{array}{r}
350 \\
15\overline{)\,5250\,}(\\
-45 \\
\hline
75
\end{array}
$$

cost of 38 watchs = ₹ (350 × 38)

= ₹ 13300

Q. $\frac{5}{13} + \frac{7}{26}$

LCM(13,26) = 26

$\frac{5 \times 2}{13 \times 2} = \frac{10}{26}$

$\frac{10}{26} + \frac{7}{26} = \frac{17}{26}$

Q. CDXXV + CCV = LXV

425 + 205 - 65

IV 630 - 65

= 565

$$
\begin{array}{r}
3\,5\,6 \\
\times \quad \boxed{A}\,6 \\
\hline
2\,1\,3\,6 \\
+\ 7\,\boxed{B}\,2\,0 \\
\hline
9\,2\,5\,6 \\
\hline
\end{array}
$$

Find $\underline{\underline{A}}$ and $\underline{\underline{B}}$.

(2) (1)

Find the value of $X+Y$.

A) 5

B) 4

C) 8

D) 9

$$
\begin{array}{r}
2\boxed{x}23 \\
12\overline{)25482} \\
-24 \\
\hline
14 \\
-12 \\
\hline
28 \\
-2\boxed{y} \\
\hline
42 \\
-36 \\
\hline
6
\end{array}
$$

$x = 1$

$y = 4$

How many times 30 must be added to itself to get 18000?

600 times

$18000 \div 30$

$\frac{300}{3}$

$$3 \overline{)1800}$$

600

18

End of the Chapter