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CBSE Board
Class VI Mathematics
Term I
Sample Paper - 1

Time: 1 hour Total Marks: 25

Solutions
Section A

1. Correct answer: A
On the given number line, from 8, five steps are moved towards the left.
Thus, the number line represents 8 - 5 = 3.

2. Correct answer: A
According to distributive law of multiplication over addition, we have:
$12 \times (45 + 30) = (12 \times 45) + (12 \times 30)$

3. Correct answer: B
267 can be estimated as 270.
132 can be estimated as 130.
Thus the required estimated sum = 270 + 130 = 400

4. Correct answer: B
We have:
10 = 2 x 5
18 = 2 x 3 x 3
HCF of 10 and 18 is 2.
Thus, 2 is the required number.

5. Correct answer: A
To convert into mixed fraction first divide numerator by denominator. The quotient is taken as the whole number part of mixed fraction. Remainder obtained is taken as the numerator and divisor as the denominator of the fractional part of the mixed fraction.
Therefore, $\frac{5}{3} = 1\frac{2}{3}$

6. Correct answer: D
A region in the interior of a circle enclosed by an arc on one side and a pair of radii on the other two sides is called a sector of the circle.

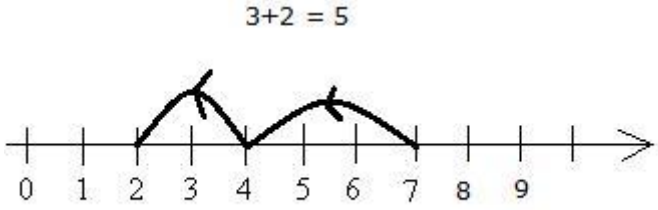
Section B

7. Place value of 9 at the Ten Lakhs place = 9000000
Place value of 9 at the hundreds place = 900
Difference = 9000000 - 900 = 8999100

8. Radius of a circle is a line joining the center of circle to any point on the circle. So, the radii drawn in the given figure are OP, OQ and OR.

9. The number of vertices in the given shapes:
(i) Sphere : 0
(ii) Cylinder : 0
(iii) Cone : 1
(iv) Pyramid : 5

10. Anna is 7 feet above sea level.
She jumps 3 feet down and walks another 2 feet down. Total distance travelled downwards = 3 + 2 = 5 feet.



11. (-13) + (-19) + (+15) + (-10)
= -13 -19 +15 - 10
= -13 -19 - 10 + 15
= -42 + 15
= - 27

Section C

12. Cost of notebook $= \text{Rs } 8\frac{3}{4} = \text{Rs}\frac{(8\times 4)+3}{4} = \text{Rs}\frac{35}{4}$

Cost of pen $= \text{Rs } 10\frac{2}{5} = \text{Rs}\frac{(10\times 5)+2}{5} = \text{Rs}\frac{52}{5}$

LCM of 4 and 5 = (2 x 2 x 5) = 20

Total cost of both the items =

$$\text{Rs}\left(\frac{35}{4}+\frac{52}{5}\right)$$

$$= \text{Rs}\left(\frac{(35\times 5)}{20}+\frac{(52\times 4)}{20}\right)$$

$$= \text{Rs}\left(\frac{175}{20}+\frac{208}{20}\right)$$

$$= \text{Rs}\frac{383}{20}$$

$$= \text{Rs } 19\frac{3}{20}$$

13. The given fractions are $\frac{2}{3}$, $\frac{1}{6}$, $\frac{5}{9}$ and $\frac{7}{12}$.

3	3	6	9	12
2	1	2	3	4
	1	1	3	2

LCM of 3, 6, 9, 12 = (3 x 2 x 3 x 2) = 36

So, we convert each one of given fractions into an equivalent fraction having 36 as denominator.

Now,

$$\frac{2}{3} = \frac{2\times 12}{3\times 12} = \frac{24}{36}$$

$$\frac{1}{6} = \frac{1\times 6}{6\times 6} = \frac{6}{36}$$

$$\frac{5}{9} = \frac{5\times 4}{9\times 4} = \frac{20}{36}$$

$$\frac{7}{12} = \frac{7\times 3}{12\times 3} = \frac{21}{36}$$

Clearly,

$$\frac{6}{36} < \frac{20}{36} < \frac{21}{36} < \frac{24}{36}$$

Hence, $\frac{1}{6} < \frac{5}{9} < \frac{7}{12} < \frac{2}{3}$

The given fractions in ascending order are $\frac{1}{6}$, $\frac{5}{9}$, $\frac{7}{12}$, $\frac{2}{3}$.

14. Let the numbers be a and b.

Then, a + b = 55 and ab = 5 x 120 = 600.

Therefore, the required sum = $\frac{1}{a}+\frac{1}{b}=\frac{a+b}{ab}=\frac{55}{600}=\frac{11}{120}$