1. Jack's monthly salary is 78,000. He spends 20% on fooding and 10% on house rent. From the remaining, he spends 30% on his only son's education and donates 10% of the rest to charity. His monthly savings is:

   (a) Rs 35498

   (b) Rs 34498

   (c) Rs 34389

   (d) Rs 34398

2. Ravi ranked 8th from the top and 37th from the bottom in a class. How many students are there in the class?

   (a) 42

   (b) 44

   (c) 46

   (d) 47

3. The value of $\dfrac{\left(p+\dfrac{1}{q}\right)^{m}\left(p-\dfrac{1}{q}\right)^{m}}{\left(q+\dfrac{1}{p}\right)^{m}\left(q-\dfrac{1}{p}\right)^{m}}$ is.

   (a) $\dfrac{p}{q}$

   (b) $\left(\dfrac{p}{q}\right)^{m}$

   (c) $\left(\dfrac{p}{q}\right)^{2m}$

   (d) $\left(\dfrac{q}{p}\right)^{2m}$

4. A thread goes 100 around a wheel of radius 14cm. If the radius of the wheel is increased to 20cm, then find the number of rounds the same thread will make around the wheel.

(a) 70

(b) 96

(c) 94

(d) 92

5. A metallic sphere of radius 3cm is melted and recast into some spherical balls of radius 0.6 cm. The number of balls that can be made out of it is:

(a) 90

(b) 95

(c) 100

(d) 125

6. Factories : $x^2 + \dfrac{1}{x^2} + 2 - 2x - \dfrac{2}{x}$

(a) $x\dfrac{1}{x}$

(b) $x + \dfrac{1}{x} - 2$

(c) $\left(x + \dfrac{1}{x}\right)^2$

(d) $\left(x + \dfrac{1}{x}\right)\left(x + \dfrac{1}{x} - 2\right)$

7. Find the value of n such that

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$$\frac{2}{3}(4n-1)-\left(2n-\frac{1+n}{3}\right)=\frac{n}{3}+\frac{4}{3}$$

(a) $-\frac{5}{4}$

(b) $\frac{5}{4}$

(c) $\frac{5}{2}$

(d) $-\frac{5}{2}$

8. Two pipes A and B can fill a tank in 16 hours and 20 hours respectively. If both the pipes are opened simultaneously, how much time will be taken to fill the tank?

(a) $8\frac{8}{5}$ hour

(b) $8\frac{7}{9}$ hour

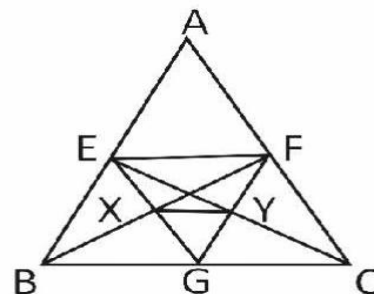(c) $8\frac{17}{9}$ hour

(d) $8\frac{8}{9}$ hour

9. In the given figure BC = 39cm, find XY if EF ll BC & XY II EF and E and X are mid points of AB and EG respectively.

(a) 9.75 cm

(b) 9.80 cm

(c) 9.65 cm

(d) 9.85 cm

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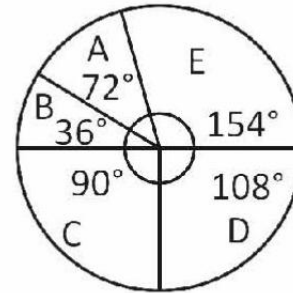
10. The expenditure on some items is shown in the following pie chart. The percentage of expenditure on A is:

(a) 15%   (b) 20%

(c) 10%   (d) 30%

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