

Therefore, the value of m will be more than $9 \cdot [\cdot 2^9 = 512 \text{ and } 2^{10} = 1024]$.

Now let us find the value of m and n .

$$\begin{aligned} 2^{10} - 960 & \\ = 1024 - 960 & \\ = 64 & \\ = 2^6 & \end{aligned}$$

Thus, we get $m = 10$ and $n = 6$.

For higher values of m we get as follows:

$$2^{11} - 960 = 1088$$

$$2^{12} - 960 = 3136$$

Here, 2^n (1088, 3136, etc) becomes greater than 2^m .

But value of m must be greater than n . Therefore, no other combination can be possible.

197. 3; When the two sides of the triangle are increased by 100% then the percentage increase

$$\text{in the area} = 100 + 100 + \frac{100 \times 100}{100} = 300\%$$

Hence, the area of the triangle will become 4 times.

198. 1

199. 4

200. 4; We have $\frac{30}{10+x} = \frac{5}{2}$

$$\therefore x = 2 \text{ litres}$$