STD – 10 MATHS

CHAPTER - 1

REAL NUMBER

EXERCISE - 1.4 Q-1 (6 to 10)

(vi)  $\frac{23}{2^35^2}$ 

Clearly, the denominator is in the form of  $2^{m} \times 5^{n}$ .

Hence,  $\frac{23}{2^35^2}$  has a terminating decimal expansion.

(vii) 
$$\frac{129}{2^2 5^7 7^5}$$

As you can see, the denominator is not in the form of  $2^m \times 5^n$ .

Hence,  $\frac{129}{2^2 5^7 7^5}$  has a non-terminating decimal expansion.

(viii) 
$$\frac{6}{15}$$

$$\frac{6}{15}=\frac{2}{5}$$

Since, the denominator has only 5 as its factor,

thus,  $\frac{6}{15}$  has a terminating decimal expansion.

$$(ix) \frac{35}{50}$$

$$\frac{35}{50} = \frac{7}{10}$$

## Factorising the denominator, we get,

2	<b>50</b>
5	25
5	5
	1

 $10 = 2 \times 5$ 

Since, the denominator is in the form of  $2^{m} \times 5^{n}$ 

thus,  $\frac{35}{50}$  has a terminating decimal expansion.

$$(x) \frac{77}{210}$$

$$=\frac{77}{210}$$

$$=\frac{(7\times11)}{(30\times7)}$$

$$=\frac{11}{30}$$

## Factorising the denominator, we get,

2	210
3	105
5	35
7	7
	1

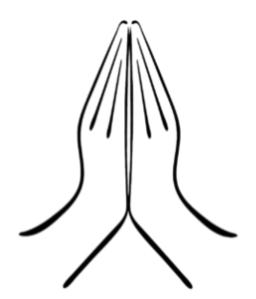
$$30 = 2 \times 3 \times 5$$

As you can see, the denominator is not in the form of

 $2^{\rm m} \times 5^{\rm n}$  Hence,  $\frac{.77}{2.10}$  has a non-terminating decimal

expansion.

## Thanks



## For watching