

Ex - 11.2

Q.1 ની નીચે દિયે મગાં - મરુપાડ પેલે ની.

Determine if the following are in proportion

(i) 20, 40, 25, 50

ચડિયા યર $\times$ હેલા યર = હુમ યર $\times$ ડીમ યર

Product of extremes = Product of middle

$$20 \times 50 = 40 \times 25$$

$$1000 = 1000$$

ગી દિયે મગાં - મરુપાડ પેલે ની.

Yes it is a proportion

(ii) 35, 49, 55, 78

$$35 \times 78 = 49 \times 55$$

$$= 2730 = 2695$$

ની દિયે મગાં - મરુપાડ પેલે ની.

No, it is not in proportion.

(iii) 24, 30, 36, 45

$$24 \times 45 = 30 \times 36$$

$$1080 = 1080$$

ગી, દિયે મગાં - મરુપાડ પેલે ની.

Yes, it is in proportion.

Ex-11.2

(iv) 10, 22, 45, 99

$$10 \times 99 = 22 \times 45$$

$$990 = 990$$

ਹਾਂ, ਇਹ ਅਨੁਪਾਤ-ਅਨੁਪਾਤ ਦਿੰਦਾ ਹੈ।

Yes, it is in proportion.

(v) 32, 48, 70, 210

$$32 \times 210 = 48 \times 70$$

$$6720 = 3360$$

ਨਹੀਂ, ਇਹ ਅਨੁਪਾਤ-ਅਨੁਪਾਤ ਦਿੰਦਾ ਨਹੀਂ ਹੈ।

No, it is not in proportion.

ਸਮਾਨ: - 2 ਵੀਂ ਹੇਠ ਦਿੱਤੇ ਅਨੁਪਾਤ-ਅਨੁਪਾਤ ਦਿਖਾਉਂਦੇ ਹਨ :

Do the following ratios forms a proportion.

(i) 5:9 ਅਤੇ 20:36

5:9 and 20:36

5:9 ਅਤੇ 20:36

ਪਹਿਲੇ ਪਾਸੇ $\times$ ਦੂਜੇ ਪਾਸੇ = ਦੂਜੇ ਪਾਸੇ $\times$ ਤੀਜੇ ਪਾਸੇ

Product of extremes = Product of middle terms

$$5 \times 36 = 9 \times 20$$

$$180 = 180$$

ਹਾਂ ਇਹ ਅਨੁਪਾਤ-ਅਨੁਪਾਤ ਦਿਖਾਉਂਦੇ ਹਨ।

Yes, it is a proportion.

(ii) $24 : 36$ m3 $32 : 48$

$24 : 36$ and $32 : 48$

$24 \times 48 = 36 \times 32$

$1152 = 1152$

જી, હો મરુપાડ, અમાર મરુપાડ હિં જી

Yes, it is not a proportion.

(iii) $32 : 40$ m3 $36 : 42$

$32 \times 42 = 40 \times 36$

$1344 = 1440$

હી હો અમાર - મરુપાડ હિં જી

No, it is ^{not} a proportion.

(iv) $27 : 18$ m3 $3 : 2$ or $27 : 18$ and $3 : 2$

$27 \times 2 = 18 \times 3$

$54 = 54$

જી હો અમાર - મરુપાડ હિં જી

Yes, it is in proportion.

(v) $35 : 28$ m3 $77 : 44$ or $35 : 28$ and $77 : 44$

$35 \times 44 = 28 \times 77$

$1540 = 2156$

હી, હો અમાર - મરુપાડ હિં જી

No, it is not in proportion.

EN-11-2

Q. 1. State true or false of the following

41311 36137

Product of extremes = Product of middle terms

$$\text{प्राप्तिमा परे } \times \text{ हानिमा परे } = \text{रुममा परे } \times \text{उभमा परे}$$

$$4 \times 37 = 3 \times 36$$

148 = 108

No, it is not true.

95 0753 81

16:42:2015

$$16 \times 5 = 4 \times 20$$

$80 = 80$

Time 00:51:37

(iii) 1943 11 8:21

$$19 \times 21 = 43 \times 8$$

$$399 = 344$$

False or 2/83

4. યજ્ઞ એ જો રોડ પેડે મર્યાદ, મમારે-મર્યાદ દર્શાવે.

Determine the following ratios form a proportion

(1) 40cm : 1m and 7 : 30

(i) $40\text{cm} : 1 \times 100\text{cm}$ म३ क 12 : क 30 ($1\text{m} = 100\text{cm}$)
 $40\text{cm} : 100\text{cm}$ म३ क 12 : क 30

$$40 \times 30 = 100 \times 12$$

$$1200 = 1200$$

जि हिो अमात्र - म३पाड द॒खा॒यि॒रि॒ ज॒क॒।

Yes, it forms a proportion.

(ii) $25\text{ min} : 1\text{ hour}$ and $40\text{ km} : 96\text{ km}$

$25\text{ min} : 1 \times 60\text{ min}$ and $40\text{ km} : 96\text{ km}$ ($1\text{ hour} = 60\text{ min}$)

$25\text{ min} : 60\text{ min}$ and $40\text{ km} : 96\text{ km}$ ($1\text{ mile} = 60\text{ min}$)

$$25 \times 96 \text{ and } 60 \times 40$$

$$2400 \text{ and } 2400$$

दे॒खि॒ द॒खा॒यि॒रि॒ ज॒क॒।

हि॒म॒ ज॒क॒ी॒ हि॒ो॒ अ॒मा॒त्र - म॒३॒पा॒ड द॒खा॒यि॒रि॒ ज॒क॒।

Yes, it forms a proportion.

(iii) $4 : 35$ प॒म॒ म॒३ 8 रि॒.ग॒. : 9 रि॒.ग॒.

4×100 प॒म॒ : 35 प॒म॒ म॒३ 8 रि॒.ग॒. : 9 रि॒.ग॒. [$1 = 100$ प॒म॒]

400 प॒म॒ : 35 प॒म॒ म॒३ 8 रि॒.ग॒. : 9 रि॒.ग॒.

$$400 \times 9 \text{ म३ } 35 \times 8$$

$$3600 \text{ म३ } 280$$

दे॒खि॒ द॒खा॒यि॒रि॒ ज॒क॒।

हि॒म॒ ज॒क॒ी॒ हि॒ो॒ अ॒मा॒त्र म॒३॒पा॒ड क॒ी॒ द॒खा॒यि॒रि॒ ज॒क॒।

No, it does not form a proportion.

Ex- 11.2

5. ଘରୁ ମଧ୍ୟ x ର ମୂଲ୍ୟ ଧରା ଥାଉ

Find the value of x in each case

(i) $25 : x :: 15 : 6$

Product of extremes = Product of middle terms

ଘରୁ ମଧ୍ୟ x ର ମୂଲ୍ୟ ଧରା ଥାଉ = ଘରୁ ମଧ୍ୟ x ର ମୂଲ୍ୟ ଧରା ଥାଉ

$$25 \times 6 = x \times 15$$

$$x \times 15 = 25 \times 6$$

$$x = \frac{25 \times 6}{15}$$

$$= 10$$

(ii) $28 : 49 :: x : 56$

$$28 \times 56 = 49 \times x$$

$$49 \times x = 28 \times 56$$

$$x = \frac{28 \times 56}{49}$$

$$= 32$$

$$x = 32$$

(iii) $8 : 20 :: 10 : x$

$$8 \times x = 20 \times 10$$

$$x = \frac{20 \times 10}{8}$$

$$= 25$$

$$= 25$$

6. ⁵ਜਾਂਚ ਕਰੋ ਕਿ ਹੇਠ ਦਿੱਤੇ ਪਦਾਂ ਨੂੰ ਜਾਰੀ ਅਨੁਪਾਤ - continued proportion
Check if the following terms are in continued
proportion.

(i) 1, 4, 16

ਜਾਰੀ ਅਨੁਪਾਤ (continued proportion)

$$1 : 4 :: 4 : 16$$

$$1 \times 16 = 4 \times 4$$

$$16 = 16$$

ਹਾਂ ਇਹ ਜਾਰੀ ਅਨੁਪਾਤ ਹੈ।

Yes it is continued proportion.

(ii) 3, 9, 27

$$3 : 9 :: 9 : 27$$

$$3 \times 27 = 9 \times 9$$

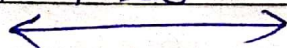
$$81 = 81$$

ਹਾਂ ਇਹ ਜਾਰੀ ਅਨੁਪਾਤ ਹੈ।

Yes it is a continued proportion.

(iii) 5, 10, 20

$$5 : 10 :: 10 : 20$$



$$5 \times 20 = 10 \times 10$$

$$100 = 100$$

ਹਾਂ ਇਹ ਜਾਰੀ ਅਨੁਪਾਤ ਹੈ।

Yes, it is a continued proportion.