Division of Rational numbers

SUBJECT : MATHEMATICS
CHAPTER NUMBER: 02
CHAPTER NAME : RATIONAL NUMBERS

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Learning outcomes

Students will be able to divide rational numbers

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Video on

https://www.youtube.com/watch?v=VMp7bm9khis (6:46 minutes)

Question 6.

(iv) -7 by -14/5

= -7 ÷ – 14/5

= -7 × 5/-14

= 1 × 5/2

= (1 × 5)/ 2

= 5/2

= 2 ½

(v) -14 by 7/-2

= -14 ÷ 7/-2

= -14 × -2/7

= (-2 × -2)/ (1 × 1)

= 4

(vi) -22/9 by 11/18

= – 22/9 ÷ 11/18

= -22/9 × 18/11

= -2/1 × 2/1

= (-2 × 2)/ (1 × 1)

= – 4/1

= – 4

6. v) -14 by 7/-2

= -14 ÷ 7/-2

= -14 × -2/7

= (-2 × -2)/ (1 × 1)

= 4

(vi) -22/9 by 11/18

= – 22/9 ÷ 11/18

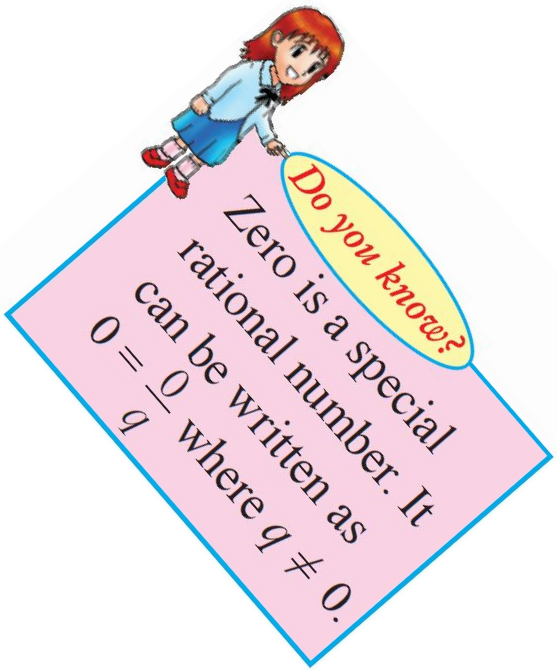
= -22/9 × 18/11

= -2/1 × 2/1

= (-2 × 2)/ (1 × 1)

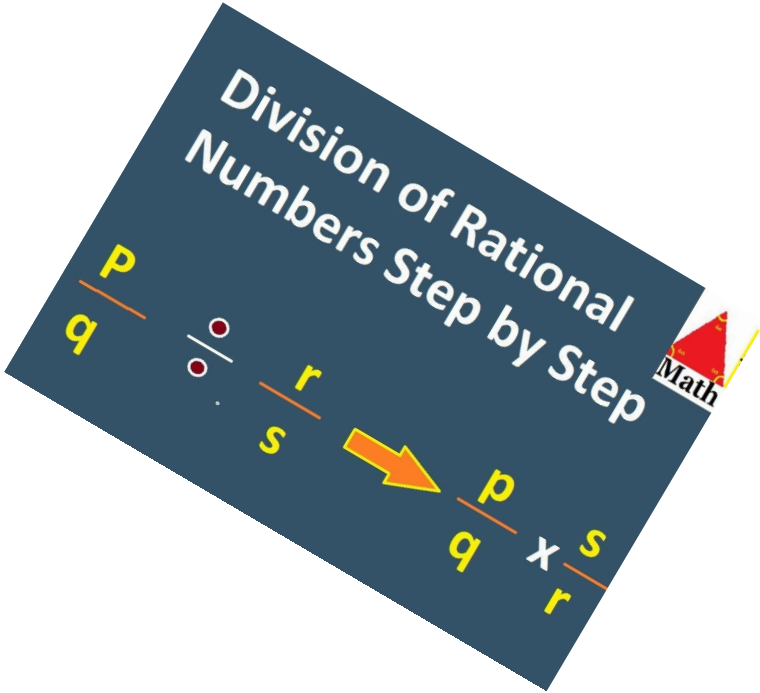
= – 4/1

= – 4



6.(vii) 35 by -7/9
= 35 ÷ -7/9
= 35 × 9/-7
= 5 × 9/-1
= (5 × 9)/ -1
= 45/-1
= -45

(viii) 21/44 by -11/9
= 21/44 ÷ -11/9
= 21/44 × -9/11
= (21 × -9)/ (44 × 11)
= -189/484



Exercise 2 E

9. The product of two rational numbers is 24. If one of them is -36/11, find the other.

Solution:

It is given that

Product of two rational numbers = 24

One rational number = -36/11

Other rational number = 24 ÷ (-36/ 11)

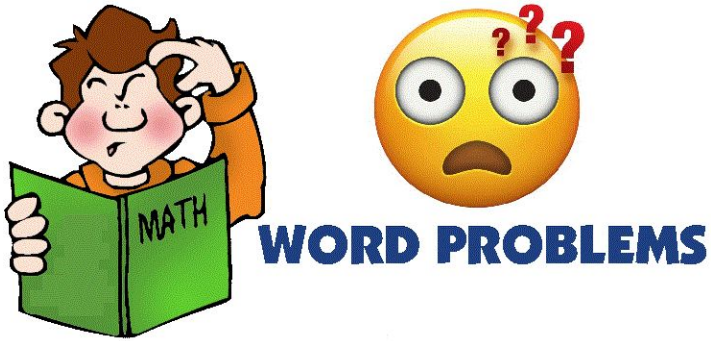
It can be written as

= 24 × (-11/36)

By further calculation

= 2 × (-11/3)

= -22/3



10. By what rational number should we multiply 20/-9, so that the product may be -5/9?

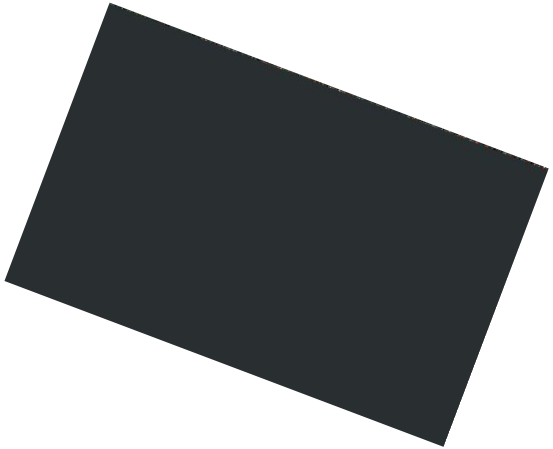
Solution:

Here the required rational number = -5/9 ÷ (20/-9)

By further calculation

= -5/9 × (-9/20)

= 1/4



H.W. Exercise 2 D
Q.No.6 i , ii , iii

THANKING YOU

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