

NCERT Solutions for 7th Class Maths: Chapter 2-Fractions and Decimals

Class 7: Maths Chapter 2 solutions. Complete Class 7 Maths Chapter 2 Notes.

NCERT Solutions for 7th Class Maths: Chapter 2-Fractions and Decimals

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Exercise 2.1

- 1. Solve:
- (i) 2 3/5
- (ii) 4 + 7/8
- (iii) 3/5 + 2/7
- (iv) 9/11 4/15
- (v) 7/10 + 2/5 + 3/2
- (vi) 2²/₃ + 3¹/₂
- (vii) 8½ 35/8

Answer

- (i) 2-3/5 = (10-3)/5 = 7/5
- (ii) 4+7/8 = (32+7)/8 = 39/8
- (iii) 3/5 + 2/7 = (21+10)/35 = 31/35
- (iv) 9/11 4/15 = (135-44)/165 = 91/165
- (v) 7/10 + 2/5 + 3/2 = (7+4+15)/10 = 26/10 = 13/5
- (vi) 2²/₃ + 3¹/₂ = 8/3 + 7/2 = (16+21)/6 = 37/6 = 6.1/6
- (vii) 8¹/₂ 3⁵/₈ = 17/2-29/8 = (68-29)/8 = 39/8 = 4.7/8

2. Arrange the following in descending order:

- (i) 2/9,2/3,8/21
- (ii) 1/5,3/7,7/10

Answer

(i) 2/9,2/3,8/21



⇒ 14/63,42/63,24/63 [Converting into like fractions]

⇒ 42/63>24/63>14/63 [Arranging in descending order]

Therefore, 2/3>8/21>2/9

(ii) 1/5,3/7,7/10 ⇒14/70,30/70,49/70 [Converting into like fractions]

⇒ 49/70>30/70>14/70 [Arranging in descending order]

Therefore, 7/10>3/7>1/5

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3. In a "magic square", the sum of the numbers in each row, in each column and along the diagonals is the same. Is this a magic square?

4	9	2
$\overline{11}$	11	$\overline{11}$
3	5	7
11	11	11
8	1	6
11	11	11

(Along the first row 4/11+9/11+2/11=15/11)(Along the first row 4/11+9/11+2/11=15/11)

Answer

Sum of first row = 4/11+9/11+2/11=15/11 [Given]

Sum of second row = 3/11+5/11+7/11=(3+5+7)/11=15/11



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Sum of third row = 8/11+1/11+6/11=(8+1+6)/11=15/11

Sum of first column = 4/11+3/11+8/11=(4+3+8)/11=15/11

Sum of second column = 9/11+5/11+1/11=(9+5+1)/11=15/11

Sum of third column = 2/11+7/11+6/11=(2+7+6)/11=15/11

Sum of first diagonal (left to right) = 4/11+5/11+6/11=(4+5+6)/11=15/11

Sum of second diagonal (left to right) = 2/11+5/11+8/11=(2+5+8)/11=15/11

Since, the sum of fractions in each row, in each column and along the diagonals are same, therefore, it s a magic square.

4. A rectangular sheet of paper is $12\frac{1}{2}$ cm long and $10\frac{2}{3}$ cm wide. Find its perimeter.

Answer

The sheet of paper is in rectangular form.

Length of sheet = $12\frac{1}{2}$ cm and Breadth of sheet = $10\frac{2}{3}$ cm

Perimeter of rectangle = 2 (length + breadth)

 $= 2(12\frac{1}{2} + 10\frac{2}{3}) = 2(25/2 + 32/3)$

 $= 2\{(25\times3+32\times2)/6\} = 2\{(75+64)/6\}$

= 2×139/6 = 139/3 = 46.(1/3) cm.

Thus, the perimeter of the rectangular sheet is 46.1/3 cm.

5. Find the perimeter of (i) ΔABE , (ii) the rectangle BCDE in this figure. Whose perimeter is greater?



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Answer

(i) In $\triangle ABE$, AB = 5/2 cm, BE = 2.(3/4) cm, AE = 3.(3/5) cm

The perimeter of $\triangle ABE = AB + BE + AE$

= 5/2 + 2.(3/4) + 3.(3/5) = 5/2 + 11/4 + 18/5

= (50+55+72)/20 = 177/20 = 8.(17/20) cm

Thus, the perimeter of $\triangle ABE$ is 8.(17/20) cm.

(ii) In rectangle BCDE, BE = 2.3/4 cm, ED = 7/6 cm

Perimeter of rectangle = 2 (length + breadth)

= 2(2.3/4+7/6) = 2(11/4+7/6)

= 2{(33+14)/12} = 47/6 = 7.(5/6) cm

Thus, the perimeter of rectangle BCDE is 7.(5/6) cm.

Comparing the perimeter of triangle and that of rectangle,

8.17/20 cm > 7.5/6 cm

Therefore, the perimeter of triangle ABE is greater than that of rectangle BCDE.

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6. Salil wants to put a picture in a frame. The picture is 7.(3/5) cm wide. To fit in the frame the picture cannot be more than 7.3/10 cm wide. How much should the picture be trimmed?

Answer

Given: The width of the picture = 7.(3/5) cm and the width of picture frame = 7.(3/10) cm

Therefore, the picture should be trimmed = 7.(3/5) - 7.(3/10) = 38/5 = 73/10

= (76-73)/10 = 3/10 cm

Thus, the picture should be trimmed by 3/10 cm.

7. Ritu ate 3/5 part of an apple and the remaining apple was eaten by her brother Somu. How much part of the apple did Somu eat? Who had the larger share? By how much?

Answer

The part of an apple eaten by Ritu = 3/5

The part of an apple eaten by Somu = 1-3/5 = (5-3)/5 = 2/5

Comparing the parts of apple eaten by both Ritu and Somu 3/5 > 2/5

Larger share will be more by 3/5-2/5 = 1/5 part.

Thus, Ritu's part is 1/5 more than Somu's part.

8. Michael finished colouring a picture in 7/12 hour. Vaibhav finished colouring the same picture in 3/4 hour. Who worked longer? By what fraction was it longer?

Answer

Time taken by Michael to colour the picture = 7/12 hour

Time taken by Vaibhav to colour the picture = 3/4 hour

Converting both fractions in like fractions, 7/12 and (3×3)/(4×3)=9/12

Here, $7/12 < 9/12 \Rightarrow 7/12 < 3/4$



Thus, Vaibhav worked longer time.

Vaibhav worked longer time by 3/4-7/12=(9-7)/12=2/12=1/6 hour.

Thus, Vaibhav took 1/6 hour more than Michael.

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Exercise 2.2

- 1. Which of the drawings (a) to (d) show:
- (i) 2×1/5
- (ii) 2×1/2
- (iii) 3×2/3
- (iv) 3×1/4

(d)





Answer

- (i) (d) Since 2×1/5=1/5+1/5
- (ii) (b) Since 2×1/2=1/2+1/2
- (iii) (a) Since 3×2/3=2/3+2/3+2/3
- (iv) (c) Since 3×1/4=1/4+1/4+1/4

2. Some pictures (a) to (c) are given below. Tell which of them show:

- (i) 3×1/5 = 3/5
- (ii) 2×1/3 = 2/3
- (iii) 3×3/4 = 2.(1/4)



Answer

- (i) (c) Since 3×1/5=1/5+1/5+1/5
- (ii) (a) Since 2×1/3=1/3+1/3
- (iii) (b) Since 3×3/4=3/4+3/4+3/4

3. Multiply and reduce to lowest form and convert into a mixed fraction:

(i) 7 × 3/5

(ii) 4 × 1/3



- (iii) 2 × 6/7
- (iv) 5 × 2/9
- (v) 2/3 × 4
- (vi) 5/2 × 6
- (vii) 11 × 4/7
- (viii) 20 × 4/5
- (ix) 13 × 1/3
- (x) 15 × 3/5

Answer

- (i) 7× 3/5
- $= (7 \times 3)/5$
- = 21/5
- =4.(1/5)
- (ii) 4× 1/3
- $= (4 \times 1)/3$
- = 4/3
- =1.(1/3)
- (iii) 2× 6/7
- = (2×6)/7
- = 12/7
- =1.(5/7)

(iv) 5× 2/9



- = (5×2)/9
- = 10/9
- =1.(1/9)
- (v) 2/3 × 4
- = (2×4)/3
- = 8/3
- = 2.(2/3)
- (vii) 11× 4/7
- = (11×4)/7
- = 44/7
- = 6.(2/7)
- (viii) 20× 4/5
- = 4×4
- = 16
- (ix) 13× 1/3
- = (13×1)/3
- = 13/3
- =4.(1/3)

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4. Shade:

(i) 2/3 of the triangles in box (a)

(ii) 3/5 of the squares in box (b)



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(i) 1/2 of the circles in box (c)



Answer

(i) 2/3 of 9 triangles = $2/3 \times 9 = 2 \times 3 = 6$ triangles

	Δ	▲
Δ	A	▲
Δ	Δ	Δ

(ii) 3/5 of 15 squares = 3/5 ×15 = 3 × 3 = 9 squares

20 B	

(iii) 1/2 of 12 circles = 1/2 ×12 = 6 circles





5. Find:

- (a) 1/2 of (i) 24 (ii) 46
- (b) 2/3 of (i) 18 (ii) 27
- (c) 3/4 of (i) 16 (ii) 36
- (d) 4/5 of (i) 20 (ii) 35
- (i) 1/2 of 24 = 12
- (ii) 1/2 of 46 = 23
- (i) 2/3 of 18 = 2/3×18 = 2 × 6 = 12
- (ii) 2/3 of 27 = 2/3×27 = 2 × 9 = 18
- (i) 3/4 of 16 = 3/4 × 16 = 3 × 4 = 12
- (ii) 3/4 of 36 = 3/4 × 36 = 3 × 9 = 27
- (i) 4/5 of 20 = 4/5 × 20 = 4 × 4 = 16
- (ii) 4/5 of 35 = 4/5 × 35 = 4 × 7 = 28

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6. Multiply and express as a mixed fraction:

- (a) 3× 5.(1/5)
- (b) 5× 6.(3/4)
- (c) 7× 2.(1/4)
- (d) 4× 6.(1/3)
- (e) 3.(1/4) ×6

(f) 3.(2/5) ×8



Answer

- (a) 3× 5.1/5
- = 3× 26/5
- = (3×26)/5
- = 78/5
- = 15.(3/5)
- (b) 5× 6.(3/4)
- = 5× 27/4
- = (5×27)/4
- = 135/4
- = 33.(3/4)
- (c) 7× 2.(1/4)
- = 7× 9/4
- $= (7 \times 9)/4$
- = 63/4
- = 15.(3/4)
- (d) 4×6.1/3
- = 4× 19/3
- = (4×19)/3
- = 76/3
- = 25.1/3
- (e) 3.(1/4) ×6



- = 13/4 ×6
- = (13×3)/2
- = 39/2
- = 19.(1/2)
- (f) 3.2/5×8
- = 17/5 ×8
- = (17×8)/5
- = 136/5
- = 27.(1/5)

7. Find:

- (a) 1/2 of (i) 2.(3/4) (ii) 4.(2/9)
- (b) 5/8 of (i) 3.(5/6) (ii) 9.(2/3)

Answer

- (a)
- (i) 1/2 of $2(3/4) = 1/2 \times 11/4 = 11/8 = 1(3/8)$
- (ii) 1/2 of 4.(2/9) = 1/2 × 38/9 = 19/9 = 2.(1/9)
- (i) 5/8 of 3.(5/6) = 5/8 × 23/6 = 115/48 = 2.(19/48)
- (ii) 5/8 of 9.(2/3) = 5/8 × 29/3 = 145/24 = 6.(1/24)

8. Vidya and Pratap went for a picnic. Their mother gave them a water bottle that contained 5 litres of water. Vidya consumed 2/5 of the water. Pratap consumed the remaining water.

(i) How much water did Vidya drink?



(ii) What fraction of the total quantity of water did Pratap drink?

Answer

Total quantity of water in bottle = 5 litres

(i) Vidya consumed = 2/5 of 5 litres = 2/5×5 = 2 litres

Thus, Vidya drank 2 litres water from the bottle.

(ii) Pratap consumed = (1-2/5) part of bottle = 5-2/5=3/5 part of bottle

Pratap consumed 3/5 of 5 litres water = 3/5×5 = 3 litres

Thus, Pratap drank 3/5 part of the total quantity of water.

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Exercise 2.3

- 1. Find:
- (i) 1/4 of
- (a) 1/4
- (b) 3/4
- (c) 4/3
- (ii)1/7 of
- (a) 2/9
- (b) 6/5
- (c) 3/10

Answer

(i) (a) 1/4 of 1/4



 $= 1/4 \times 1/4$

=(1×1)/(4×4)

=1/16

(b) 1/4 of 3/4

 $= 1/4 \times 3/4$

=(1×3)/(4×4)

= 3/16

(c) 1/4 of 4/3

= 1/4×4/3

=(1×4)/(4×3)

=1/3

(ii) (a) 1/7 of 2/9

= 1/7×2/9

=(1×2)/(7×9)

=2/63

(b) 1/7 of 2/9

= 1/7×6/5

=(1×6)/(7×5)

=6/35

(c) 1/7 of 3/10

= 1/7×3/10

=(1×3)/(7×10)



=3/70

2. Multiply and reduce to lowest form (if possible):

- (i) 2/3 × 2.(2/3)
- (ii) 2/7 × 7/9
- (iii) 3/8 × 6/4
- (iv) 9/5 × 3/5
- (v) 1/3 × 15/8
- (vi) 11/2 × 3/10
- (vii) 4/5 × 12/7

Answer

- (i) 2/3 × 2.2/3
- = 2/3 × 8/3
- = (2×8)/(3×3)
- = 16/9
- = 1.(7/9)
- (ii) 2/7 × 7/9
- $= (2 \times 7)/(7 \times 9)$
- = 2/9
- (iii) 3/8 × 6/4
- = (3×6)/(8×4)
- $= (3 \times 3)/(8 \times 2)$



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- = 9/16
- (iv) 9/5 × 3/5
- $= (9 \times 3)/(5 \times 5)$
- = 27/25
- = 1.(2/25)
- (v) 1/3 × 15/8
- = (1×15)/(3×8)
- = (1×5)/(1×8)
- = 5/8
- (vi) 11/2 × 3/10
- =(11×3)/(2×10)
- =33/20
- =1.(3/20)
- (vii) 4/5 × 12/7
- =(4×12)/(5×7)
- =48/35
- =1.(13/35)
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3. Multiply the following fractions:

- (i) 2/5 × 5.(1/4)
- (ii) 6.(2/5) × 7/9
- (iii) 3/2 × 5.(1/3)



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- (iv) 5/6 × 2.(3/7)
- (v) 3.(2/5) × 4/7
- (vi) 2.(3/5) × 3
- (vii) 3.(4/7) × 3/5

Answer

- (i) 2/5 × 5.(1/4)
- $= 2/5 \times 21/4$
- $= (2 \times 21)/(5 \times 4)$
- $= (1 \times 21)/(5 \times 2)$
- = 21/10
- = 2.(1/10)
- (ii) 6.(2/5) × 7/9
- = 32/5 × 7/9
- = (32×7)/(5×9)
- = 224/45
- = 4.(44/45)
- (iii) 3/2×5.(1/3)
- $= 3/2 \times 16/3$
- = 48/6
- = 8

(iv) 5/6×2.(3/7)

= 5/6 × 17/7



- = 85/42
- = 2.(1/42)
- (v) 3.(2/5) × 4/7
- = 17/7 × 4/7
- = 68/35
- = 1.(33/35)
- (vi) 2.(3/5) × 3
- = 13/5 × 3/1
- $= (13 \times 3)/(5 \times 1)$
- = 39/5
- = 7.(4/5)
- (vii) 3.(4/7) × 3/5
- = 25/7 × 3/5
- $= (5 \times 3)/(7 \times 1)$
- = 15/7
- = 2.(1/7)

4. Which is greater:

- (i) 2/7 of 3/4 or 3/5 of 5/8
- (ii) 1/2 of 6/7 or 2/3 of 3/7

Answer

(i) 2/7 of 3/4 or 3/5 of 5/8

 \Rightarrow 2/7 × 3/4 or 3/5 × 5/8



⇒ 3/14 or 3/8

⇒ 3/14<3/8

Thus, 3/5 of 5/8 is greater.

(ii) 1/2 of 6/7 or 2/3 of 3/7

 \Rightarrow 1/2 × 6/7 or 2/3 × 3/7

 \Rightarrow 3/7 or 2/7

 $\Rightarrow 3/7 > 2/7$

Thus, 1/2 of 6/7 is greater.

5. Saili plants 4 saplings in a row in her garden. The distance between two adjacent saplings is 3/4 m. Find the distance between the first and the last sapling.

Answer

The distance between two adjacent saplings = 3/4 m

Saili planted 4 saplings in a row, then number of gap in saplings



Therefore, the distance between the first and the last saplings = $3 \times 3/4 = 9/4m = 2.(1/4)$ m

Thus the distance between the first and the last saplings is 2.(1/4) m.

6. Lipika reads a book for 1.3/4 hours everyday. She reads the entire book in 6 days. How many hours in all were required by her to read the book?

Answer



Time taken by Lipika to read a book = 1.(3/4) hours.

She reads entire book in 6 days.

Now, total hours taken by her to read the entire book = $1.3/4 \times 6 = 7/4 \times 6 = 21/2 = 10.1/2$ hours

Thus, 10 hours were required by her to read the book.

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7. A car runs 16 km using 1 litre of petrol. How much distance will it cover using 2.3/4 litres of petrol?

Answer

In 1 litre of pertrol, car covers the distance = 16 km

In 2.3/4 litres of petrol, car covers the distance = 2.3/4 of 16 km = 11/4×16 = 44 km

Thus, car will cover 44 km distance.

- 8. (a) (i) Provide the number in the box _____, such that 2/3× ____ = 10/30
- (ii) The simplest form of the number obtained in ____ is ____.
- (b) (i) Provide the number in the box _____ such that 3/5× ____ = 24/75
- (ii) The simplest form of the number obtained in ____ is ____.

Answer

- (a) (i) 2/3×5/10=10/30
- (ii) The simplest form of 5/10 is 1/2
- (b) (i) 3/5×8/15=24/75
- (ii) The simplest form of 8/15 is 8/15



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Exercise 2.4

- 1. Find:
- (i) 12 ÷ 3/4
- (ii) 14 ÷ 5/6
- (iii) 8 ÷ 7/3
- (iv) 4 ÷ 8/3
- (v) 3 ÷ 2.(1/3)
- (vi) 5 ÷ 3.(4/7)

Answer

- (i) 12÷3/4 = 12 × 4/3 = 16
- (ii) 14 ÷ 5/6 = 14 × 6/5 = 84/5 = 16.(4/5)
- (iii) 8 ÷ 7/3 = 8× 3/7 = 24/7 = 3.(3/7)
- (iv) 4÷ 8/3 = 4× 3/8 = 3/2 = 1.(1/2)
- (v) $3 \div 2.(1/3) = 3 \div 7/3 = 3 \times 3/7 = 9/7 = 1.(2/7)$
- (vi) 5÷ 3.(4/7) = 5÷ 25/7 = 5× 7/25 = 7/5 = 1.(2/5)

2. Find the reciprocal of each of the following fractions. Classify the reciprocals as proper fraction, improper fractions and whole numbers.

- (i) 3/7
- (ii) 5/8
- (iii) 9/7



- (iv) 6/5
- (v) 12/7
- (vi) 1/8
- (vii) 1/11

Answer

- (i) Reciprocal of $3/7 = 7/3 \rightarrow$ Improper fraction
- (ii) Reciprocal of 5/8 = 8/5 \rightarrow Improper fraction
- (iii) Reciprocal of $9/7 = 7/9 \rightarrow$ Proper fraction
- (iv) Reciprocal of $6/5 = 5/6 \rightarrow$ Proper fraction
- (v)Reciprocal of $12/7 = 7/12 \rightarrow$ Proper fraction
- (vi) Reciprocal of $1/8 = 8 \rightarrow$ Whole number
- (vi) Reciprocal of $1/11 = 11 \rightarrow$ Whole number
- 3. Find:
- (i) 7/3 ÷2
- (ii) 4/9 ÷5
- (iii) 6/13 ÷7
- (iv) 4.(1/3) ÷3
- (v) 3.(1/2) ÷4
- (vi) 4.(3/7) ÷7

Answer

(i) $7/3 \div 2 = 7/3 \times \frac{1}{2} = (7 \times 1)/(3 \times 2) = 7/6 = 1.(1/6)$

(ii) 4/9 ÷ 5 = 4/9 × 1/5 = (4×1)/(9×5) = 4/45 https://www.indcareer.com/schools/ncert-solutions-for-7th-class-maths-chapter-2-fractions-and-d ecimals/



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- (iii) 6/13 ÷ 7 = 6/13 × 1/7 = (6×1)/(13×7) = 6/91
- (iv) $4.(1/3) \div 3 = 13/3 \div 3 = 13/3 \times 1/3 = 13/9 = 1.(4/9)$
- (v) $3.(1/2) \div 4 = 7/2 \div 4 = 7/2 \times \frac{1}{4} = 7/8$
- (vi) 4.(3/7) ÷ 7 = 31/7 ÷ 7 = 31/7 × 1/7 = 31/49

4. Find:

- (i) 2/5 ÷ 1/2
- (ii) 4/9 ÷ 2/3
- (iii) 3/7 ÷ 8/7
- (iv) 2.1/3 ÷ 3/5
- (v) 3.1/2 ÷ 8/3
- (vi) 2/5 ÷ 1.1/2
- (vii) 3.1/5 ÷ 1.2/3

(viii) 2.1/5÷1.1/5

Answer

- (i) 2/5 ÷ ¹⁄₂
- $= 2/5 \times 2/1 = (2 \times 2)/(5 \times 1) = 4/5$
- (ii) 4/9 ÷ 2/3
- $= 4/9 \times 3/2 = 2/3$
- (iii) 3/7 ÷ 8/7
- $= 3/7 \times 7/8 = 3/8$
- (iv) 2.(1/3) ÷ 3/5

= 7/3 ÷ 3/5 = 7/3 × 5/3 = 35/9 = 3.(8/9) https://www.indcareer.com/schools/ncert-solutions-for-7th-class-maths-chapter-2-fractions-and-d ecimals/



(v) $3.(1/2) \div 8/3$ = $7/2 \div 8/3 = 7/2 \times 3/8 = (7 \times 3)/(2 \times 8) = 21/16 = 1.(5/16)$ (vi) $2/5 \div 1.(1/2)$ = $2/5 \div 3/2 = 2/5 \times 2/3 = (2 \times 2)/(5 \times 3) = 4/15$ (vii) $3.(1/5) \div 1.(2/3)$ = $16/5 \div 5/3 = 16/5 \times 3/5 = (16 \times 3)/(5 \times 5) = 48/25 = 1.(23/25)$ (viii) $2.(1/5) \div 1.(1/5)$ = $11/5 \div 6/5 = 11/5 \times 5/6 = 11/6 = 1.(5/6)$ NCERT 7th Maths Chapter 2, class 7 Maths Chapter 2 solutions

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Exercise 2.5

1. Which is greater:

- (i) 0.5 or 0.05
- (ii) 0.7 or 0.5
- (iii) 7 or 0.7
- (iv) 1.37 or 1.49
- (v) 2.03 or 2.30
- (vi) 0.8 or 0.88

Answer

(i) 0.50 > 0.05

(ii) 0.7 > 0.5

(iii) 7.0 > 0.7



- (iv) 1.37 < 1.49
- (v) 2.03 < 2.30
- (vi) 0.80 < 0.88

2. Express as rupees using decimals:

- (i) 7 paise
- (ii) 7 rupees 7 paise
- (iii) 77 rupees 77 paise
- (iv) 50 paise
- (v) 235 paise

Answer

- : 100 paise = Re. 1
- ∴ 1 paisa = Re. 1/100
- 7 paise = Re. 7/100 = Re. 0.07
- 7 rupees 7 paise = Rs. 7 + Re. 7/100 = Rs. 7 + Re. 0.07 = Rs. 7.07
- 77 rupees 77 paise = Rs. 77 + Re. 77/100 = Rs. 77 + Re. 0.77 = Rs. 77.77
- 50 paise = Re. 50/100 = Re. 0.50
- 235 paise = Re. 235/100 = Rs. 2.35

3. (i) Express 5 cm in metre and kilometer.

(ii) Express 35 mm in cm, m and km.

Answer

(i) Express 5 cm in meter and kilometer.

:: 100 cm = 1 meter



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 \therefore 1 cm = 1/100 meter \Rightarrow 5 cm = 5/100 = 0.05 meter.

Now, : 1000 meters = 1 kilometers

: 1 meter = 1/1000 kilometer

⇒ 0.05 meter = 0.05/1000 = 0.00005 kilometer

(ii) Express 35 mm in cm, m and km.

∵ 10 mm = 1 cm

: 1 mm = 1/10 cm \Rightarrow 35 mm = 35/10 = 3.5 cm

Now, :: 100 cm = 1 meter

∴ 1 cm = 1/100 meter ⇒3.5 cm = 3.5/100 = 0.035 meter

Again, : 1000 meters = 1 kilometers

: 1 meter = 1/1000 kilometer

⇒ 0.035 meter = 0.035/1000 = 0.000035 kilometer

4. Express in kg.:

- (i) 200 g
- (ii) 3470 g

(iii)4 kg 8 g

Answer

 $1000 \text{ g} = 1 \text{ kg} \Rightarrow 1 \text{ g} = 1/1000 \text{ kg}$

- (i) 200 g = (200× 1/1000) kg = 0.2 kg
- (ii) 3470 g = (3470× 1/1000) kg = 3.470 kg
- (iii) 4 kg 8 g = 4 kg + (8× 1/1000) kg = 4 kg + 0.008 kg = 4.008 kg

5. Write the following decimal numbers in the expanded form:



- (i) 20.03
- (ii) 2.03
- (iii) 200.03
- (iv) 2.034

Answer

- (i) 20.03 = 2×10 + 0×1 + 0×1/10 + 3×1/100
- (ii) 2.03 = 2×1+0×1/10+3×1/100
- (iii) 200.03 = 2×100+0×10+0×1+0×1/10+3×1/100
- (iv) $2.034 = 2 \times 1 + 0 \times 1/10 + 3 \times 1/100 + 4 \times 1/1000$

6. Write the place value of 2 in the following decimal numbers:

- (i) 2.56
- (ii) 21.37
- (iii) 10.25
- (iv) 9.42
- (v) 63.352

Answer

- (i) Place value of 2 in 2.56 = 2 × 1 = 2 ones
- (ii) Place value of 2 in 21.37 = 2 × 10 = 2 tens
- (iii) Place value of 2 in $10.25 = 2 \times 1/10 = 2$ tenths
- (iv) Place value of 2 in $9.42 = 2 \times 1/100 = 2$ hundredth
- (v) Place value of 2 in $63.352 = 2 \times 1/1000 = 2$ thousandth



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7. Dinesh went from place A to place B and from there to place C. A is 7.5 km from B and B is 12.7 km from C. Ayub went from place A to place D and from there to place C. D is 9.3 km from A and C is 11.8 km from D. Who travelled more and by how much?



Answer

Distance travelled by Dinesh when he went from place A to place B = 7.5 km and from place B to C = 12.7 km.



Total distance covered by Dinesh = AB + BC

= 7.5 + 12.7 = 20.2 km

Total distance covered by Ayub = AD + DC

= 9.3 + 11.8 = 21.1 km

On comparing the total distance of Ayub and Dinesh,

21.1 km > 20.2 km

Therefore, Ayub covered more distance by 21.1 – 20.2 = 0.9 km = 900 m

8. Shyam bought 5 kg 300 g apples and 3 kg 250 g mangoes. Sarala bought 4 kg 800 g oranges and 4 kg 150 g bananas. Who bought more fruits?



Answer

Total weight of fruits bought by Shyam = 5 kg 300 g + 3 kg 250 g = 8 kg 550 g

Total weight of fruits bought by Sarala = 4 kg 800 g + 4 kg 150 g = 8 kg 950 g

On comparing the quantity of fruits,

8 kg 550 g < 8 kg 950 g

Therefore, Sarala bought more fruits.

9. How much less is 28 km than 42.6 km?

Answer

We have to find the difference of 42.6 km and 28 km.

42.6 – 28.0 = 14.6 km

Therefore 14.6 km less is 28 km than 42.6 km

NCERT 7th Maths Chapter 2, class 7 Maths Chapter 2 solutions

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Exercise 2.6

- 1. Find:
- (i) 0.2 × 6
- (ii) 8 × 4.6
- (iii) 2.71 × 5
- (iv) 20.1 × 4
- (v) 0.05 × 7
- (vi) 211.02 × 4

(vii) 2 × 0.86



Answer

- (i) 0.2 × 6 = 1.2
- (ii) 8 × 4.6 = 36.8
- (iii) 2.71 × 5 = 13.55
- (iv) 20.1 × 4 = 80.4
- (v) 0.05 × 7 = 0.35
- (vi) 211.02 × 4 = 844.08
- (vii) 2 × 0.86 = 1.72

2. Find the area of rectangle whose length is 5.7 cm and breadth is 3 cm ?

Answer

Given: Length of rectangle = 5.7 cm and Breadth of rectangle = 3 cm

Area of rectangle = Length × Breadth

$= 5.7 \times 3 = 17.1 \text{ cm}^2$

Thus, the area of rectangle is 17.1 cm²

3. Find:

- (i) 1.3 × 10
- (ii) 36.8 × 10
- (iii) 153.7 × 10
- (iv) 168.07 × 10
- (v) 31.1 × 100
- (vi) 156.1 × 100

(vii) 3.62 × 100



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- (viii) 3.07 × 100
- (ix) 0.5 × 10
- (x) 0.08 × 10
- (xi) 0.9 × 100
- (xii) 0.03 × 1000
- (i) 1.3 × 10 = 13.0
- (ii) 36.8 × 10 = 368.0
- (iii) 153.7 × 10 = 1537.0
- (iv) 168.07 × 10 = 1680.7
- (v) 31.1 × 100 = 3110.0
- (vi) 156.1 × 100 = 15610.0
- (vii) 3.62 × 100 = 362.0
- (viii) 43.07 × 100 = 4307.0
- (ix) 0.5 × 10 = 5.0
- $(x) 0.08 \times 10 = 0.80$
- (xi) 0.9 × 100 = 90.0
- (xii) 0.03 × 1000 = 30.0

4. A two-wheeler covers a distance of 55.3 km in one litre of petrol. How much distance will it cover in 10 litres of petrol?

Answer

: In one litre, a two-wheeler covers a distance = 55.3 km

∴ In 10 litrs, a two- wheeler covers a distance = 55.3 × 10 = 553.0 km



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Thus, 553 km distance will be covered by it in 10 litres of petrol.

5. Find:

- (i) 2.5 × 0.3
- (ii) 0.1 × 51.7
- (iii) 0.2 × 316.8
- (iv) 1.3 × 3.1
- (v) 0.5 × 0.05
- (vi) 11.2 × 0.15
- (vii) 1.07 × 0.02
- (viii) 10.05 × 1.05
- (ix) 101.01 × 0.01
- (x) 100.01 × 1.1
- (i) 2.5 × 0.3 = 0.75
- (ii) 0.1 × 51.7 = 5.17
- (iii) 0.2 × 316.8 = 63.36
- (iv) 1.3 × 3.1 = 4.03
- (v) 0.5 × 0.05 = 0.025
- (vi) 11.2 × 0.15 = 1.680
- (vii) 1.07 × 0.02 = 0.0214
- (viii) 10.05 × 1.05 = 10.5525
- (ix) 101.01 × 0.01 = 1.0101
- (x) 100.01 × 1.1 = 110.11



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NCERT 7th Maths Chapter 2, class 7 Maths Chapter 2 solutions

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- Exercise 2.7
- 1. Find:
- (i) 0.4 ÷ 2
- (ii) 0.35 ÷ 5
- (iii) 2.48 ÷ 4
- (iv) 65.4 ÷ 6
- (v) 651.2 ÷ 4
- (v) 14.49 ÷ 7
- (vii) 3.96 ÷ 4
- (viii) 0.80 ÷ 5

Answer

(i) 0.4 ÷ 2

- $= 4/10 \times 1/2 = 2/10 = 0.2$
- (ii) 0.35 ÷ 5
- $= 35/100 \times 1/5 = 7/100 = 0.07$
- (iii)2.48 ÷ 4
- = 248/100 × 1/4 = 62/100 = 0.62
- (iv) 65.4 ÷ 6
- = 654/10 × 1/6 = 109/10 = 10.9
- (v) 651.2 ÷ 4



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- = 6512/10 × 1/4 = 1628/10 = 162.8
- (vi) 14.49 ÷ 7
- $= 1449/100 \times 1/7 = 207/100 = 2.07$
- (vii) 3.96 ÷ 4
- $= 396/100 \times 1/4 = 99/100 = 0.99$
- (viii) 0.80 ÷ 5
- $= 80/100 \times 1/5 = 16/100 = 0.16$

2. Find:

- (i) 4.8 ÷ 10
- (ii) 52.5 ÷ 10
- (iii) 0.7 ÷ 10
- (iv) 33.1 ÷ 10
- (v) 272.23 ÷ 10
- (vi) 0.56 ÷ 10
- (vii) 3.97 ÷ 10

Answer

- (i) 4.8 ÷ 10
- = 4.8/10 = 0.48
- (ii) 52.5 ÷ 10
- = 52.5/10 = 5.25
- (iii) 0.7 ÷ 10

= 0.7/10 = 0.07



- (iv) 33.1 ÷ 10
- = 33.1/10 = 3.31
- (v) 272.23 ÷ 10
- = 272.23/10 = 27.223
- (vi) 0.56 ÷ 10
- = 0.56/10 = 0.056
- (vii) 3.97 ÷ 10
- = 3.97/10 = 0.397

3. Find:

- (i) 2.7 ÷ 100
- (ii) 0.3 ÷ 100
- (iii) 0.78 ÷ 100
- (iv) 432.6 ÷ 100
- (v) 23.6 ÷ 100
- (vi) 98.53 ÷ 100

Answer

- (i) 2.7 ÷ 100
- $= 27/10 \times 1/100 = 27/1000 = 0.027$
- (ii) 0.3 ÷ 100
- $= 3/10 \times 1/100 = 3/1000 = 0.003$
- (iii) 0.78 ÷ 100

= 78/100 × 1/100 = 78/10000 = 0.0078 https://www.indcareer.com/schools/ncert-solutions-for-7th-class-maths-chapter-2-fractions-and-d ecimals/



- (iv) 432.6 ÷ 100
- = 4326/10 × 1/100 = 4326/1000 = 4.326
- (v) 23.6 ÷ 100
- $= 236/10 \times 1/100 = 236/1000 = 0.236$
- (vi) 98.53 ÷ 100
- $= 9853/100 \times 1/100 = 9853/10000 = 0.9853$
- 4. Find:
- (i) 7.9 ÷ 1000
- (ii) 26.3 ÷ 1000
- (iii) 38.53 ÷ 1000
- (iv) 128.9 ÷ 1000
- (v) 0.5 ÷ 1000

Answer

- (i) 7.9 ÷ 1000
- $= 79/10 \times 1/1000 = 79/10000 = 0.0079$
- (ii) 26.3 ÷ 1000
- = 263/10 × 1/1000 = 263/10000 = 0.0263
- (iii) 38.53 ÷ 1000
- $= 3853/100 \times 1/1000 = 3853/100000 = 0.03853$
- (iv) 128.9 ÷ 1000
- $= 1289/10 \times 1/1000 = 1289/10000 = 0.1289$

(v) 0.5 ÷ 1000



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 $= 5/10 \times 1/1000 = 5/10000 = 0.0005$

5. Find:

- (i) 7 ÷ 3.5
- (ii) 36 ÷ 0.2
- (iii) 3.25 ÷ 0.5
- (iv) 30.94 ÷ 0.7
- (v) 0.5 ÷ 0.25
- (vi) 7.75 ÷ 0.25
- (vii) 76.5 ÷ 0.15
- (viii) 37.8 ÷ 1.4
- (ix) 2.73 ÷ 1.3

Answer

- (i) 7 ÷ 3.5
- $= 7 \div 35/10 = 7 \times 10/35 = 10/5 = 2$
- (ii) 36 ÷ 0.2
- $= 36 \div 2/10 = 36 \times 10/2 = 18 \times 10 = 180$
- (iii) 3.25 ÷ 0.5
- $= 325/100 \div 5/10 = 325/100 \times 10/5 = 65/10 = 6.5$
- (iv) 30.94 ÷ 0.7
- $= 3094/100 \div 7/10 = 3094/100 \times 10/7 = 442/10 = 44.2$
- (v) 0.5 ÷ 0.25

= 5/10 ÷ 25/100 = 5/10 × 100/25 = 10/5 = 2 https://www.indcareer.com/schools/ncert-solutions-for-7th-class-maths-chapter-2-fractions-and-d ecimals/



(vi) $7.75 \div 0.25$ = $775/100 \div 25/100 = 775/100 \times 100/25 = 31$ (vii) $76.5 \div 0.15$ = $765/10 \div 15/100 = 765/10 \times 100/15 = 51 \times 10 = 510$ (viii) $37.8 \div 1.4$ = $378/10 \div 14/10 = 378/10 \times 10/14 = 27$ (ix) $2.73 \div 1.3$ = $273/100 \div 13/10 = 273/100 \times 10/13 = 21/10 = 2.1$

6. A vehicle covers a distance of 43.2 km in 2.4 litres of petrol. How much distance will it cover in one litre petrol?

Answer

- : In 2.4 litres of petrol, distance covered by the vehicle = 43.2 km
- : In 1 litre of petrol, distance covered by the vehicle = $43.2 \div 2.4$
- $= 432/10 \div 24/10 = 432/10 \times 10/24$
- = 18 km

Thus, it covered 18 km distance in one litre of petrol.





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- <u>Chapter 2 Fractions and Decimals</u>
- Chapter 3 Data Handling
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- <u>Chapter 6 The Triangle and its Properties</u>
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