NCERT Solutions for 6th Class Maths: Chapter 8-Decimals

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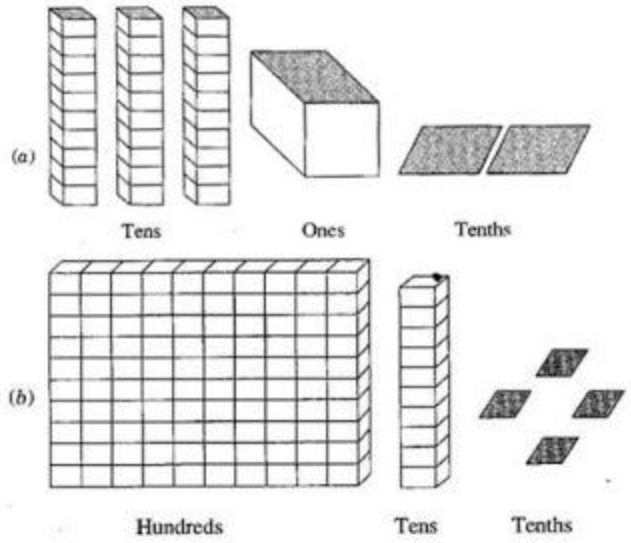
Class 6: Maths Chapter 8 solutions. Complete Class 6 Maths Chapter 8 Notes.

NCERT Solutions for 6th Class Maths: Chapter 8-Decimals

NCERT 6th Maths Chapter 8, class 6 Maths Chapter 8 solutions

Exercise 8.1

1. Write the following as numbers in the given table:



Hundreds (100)	Tens (10)	Ones (1)	Tenths (1/10)

Answer

Hundreds (100)	Tens (10)	Ones (1)	Tenths (1/10)	Number
0	3	1	2	31.2
1	1	0	4	110.4

2. Write the following decimals in the place value table:

(a) 19.4

(b) 0.3

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(c) 10.6

(d) 205.9

Answer

(a)

Hundreds	Tens	Once	Tenths
0	1	9	4

(b)

Hundreds	Tens	Once	Tenths
0	0	0	3

(c)

Hundreds	Tens	Once	Tenths
0	1	0	6

(d)

Hundreds	Tens	Once	Tenths
2	0	5	9

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3. Write each of the following as decimals:(a) seven-tenths

(b) Two tens and nine-tenths

(c) Fourteen point six

(d) One hundred and two-ones

(e) Six hundred point eight

Answer

(a) seven-tenths = 7 tenths = 7/10= 0.7

(b) 2 tens and 9-tenths = 2 x 10 + 9/10 = 20 + 0.9 =20.9

(c) Fourteen point six = 14.6

(d) One hundred and 2-ones = 100 + 2 x 1 = 100 + 2 = 102

(e) Six hundred point eight = 600.8

4. Write each of the following as decimals:

(a) 5/10

(b) 3+7/10

(c) 200+60+5+1/10

(d) 70+8/10

(e) 88/10

(f) 4.2/10

(g) 3/2

(h) 2/5

(i) 12/5

(j) 3.3/5

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(k) 4.1/2

Answer

(a) 5/10 = 0.5

(b) 3+7/10 = 3 + 0.7 = 3.7

(c) 200+60+5+1/10 = 200 + 60 + 5 + 0.1 = 265.1

(d) 70+8/10 = 70 + 0.8 = 70.8

(e) 88/10=(80+8)/10=80/10+8/10=8+8/10= 8 + 0.8 = 8.8

(f) 4.2/10=(4+2)/10 = 4 + 0.2 = 4.2

(g) 3/2=(3×5)/(2×5)=15/10=(10+5)/10=10/10+5/10 = 1 + 0.5 = 1.5

(h) 2/5=(2×2)/(5×2)=4/10= 0.4

(i) 12/5=(12×2)/(5×2)=24/10=(20+4)/10=20/10+4/10 = 2 + 0.4 = 2.4

(j) 3.3/5=3+3/5=3+(3×2)/(5×2)=3+6/10= 3 + 0.6 = 3.6

(k) 4.1/2=4+1/2=4+(1×5)/(2×5)=4+5/10= 4 + 0.5 = 4.5

5. Write the following decimals as fraction. Reduce the fractions to lowest terms:

(a) 0.6

(b) 2.5

(c) 1.0

(d) 3.8

(e) 13.7

(f) 21.2

(g) 6.4

Answer

(a) 0.6 = 6/10=3/5

(b) 2.5 = $\frac{25}{10} = \frac{5}{2}$

(c) 1.0 = $\frac{10}{10}$ = 1

(d) 3.8 = $\frac{38}{10} = \frac{19}{5}$

(e) 13.7 = $\frac{137}{10}$

(f) $21.2 = \frac{212}{10} = \frac{106}{5}$

(g) 6.4 = $\frac{64}{10} = \frac{32}{5}$

6. Express the following as cm using decimals:

(a) 2 mm

(b) 30 mm

(c) 116 mm

(d) 4 cm 2 mm

(e) 162 mm

(f) 83 mm

Answer

(a)∵ 10 mm = 1 cm

(b) 2.5 = $\frac{25}{10} = \frac{5}{2}$

(c) 1.0 = $\frac{10}{10}$ = 1

(d) 3.8 = $\frac{38}{10} = \frac{19}{5}$

(e) 13.7 = $\frac{137}{10}$

(f) $21.2 = \frac{212}{10} = \frac{106}{5}$

(g) 6.4 = $\frac{64}{10} = \frac{32}{5}$

7. Between which two whole numbers on the number line are the given numbers lie? Which of these whole numbers is nearer to the given number?

(a) 0.8

(b) 5.1

(c) 2.6

(d) 6.4

(e) 9.1

(f) 4.9

Answer

(a) From 0 to 1, 0.8 is nearest to 1.

(b) From 5 to 6, 5.1 is nearest to 5.

(c) From 2 to 3, 2.6 is nearest to 3.

(d) From 6 to 7, 6.4 is nearest to 6.

(e) From 9 to 10, 9.1 is nearest to 9.

(f) From 4 to 5, 4.9 is nearest to 5.

8. Show the following numbers on the number line:

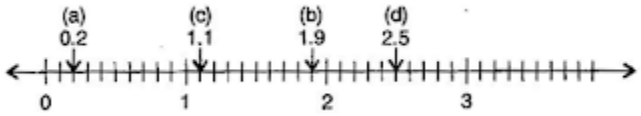
(a) 0.2

(b) 1.9

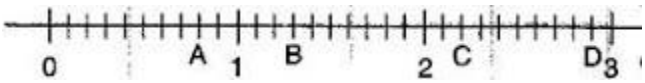
(c) 1.1

(d) 2.5

Answer



9. Write the decimal number represented by the points A, B, C, D:



Answer

A = 0 + 8/10 = 0.8

B = 1 + 3/10 = 1.3

C = 2 + 2/10 = 2.2

D = 2 + 9/10 = 2.9

10. (a) The length of Ramesh's notebook is 9 cm and 5 mm. What will be its length in cm?

(b) The length of a young gram plant is 65 mm. Express its length in cm.

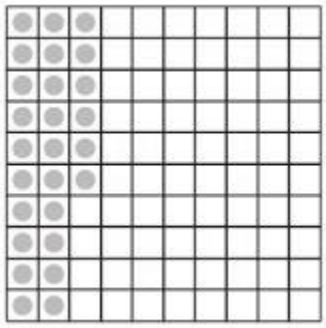
Answer

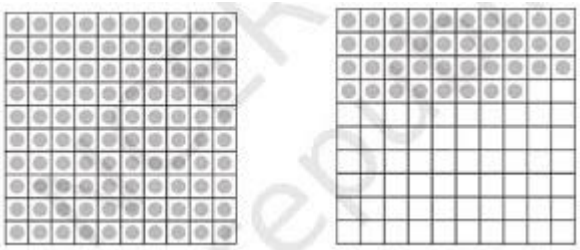
(a) 9 cm 5 mm = 9 cm + 5 mm = 9 + 5/10 = 9.5 cm

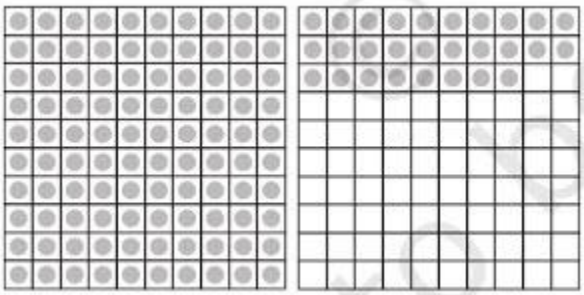
(b) 65 mm = 65/10 cm = 6.5 cm

Exercise 8.2

1. Complete the table with the help of these boxes and use decimals to write the number:

(a) 

(b) 

(c) 

	Ones	Tenths	Hundredths	Numbers
(a)				
(b)				
(c)				

Answer

	Ones	Tenths	Hundredths	Numbers
(a)	0	2	6	0.26
(b)	1	3	8	1.38

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(c) 1 2 9 1.29

2. Write the numbers given in the following place value table in decimal form:

	Hundreds 100	Tens 10	Ones 1	Tenths 1/10	Hundredths 1/100	Thousandths 1/1000
(a)	0	0	3	2	5	0
(b)	1	0	2	6	3	0
(c)	0	3	0	0	2	5
(d)	2	1	1	9	0	2
(e)	0	1	2	2	4	1

Answer

(a) 0 × 100 + 0 × 10 + 3 × 1 + 2 × 1/10 + 5 × 1/100 + 0 × 1/1000

= 0 + 0 + 3 + 0.2 + 0.05 + 0 = 3.25

(b) 1 × 100 + 0 × 10 + 2 × 1 + 6 × 1/10 + 3 × 1/100 + 0 × 1/1000

= 1 + 0 + 2 + 0.6 + 0.03 + 0 = 102.63

(c) 0 × 100 + 3 × 10 + 0 × 1 + 0 × 1/10 + 2 × 1/100 + 5 × 1/1000

= 0 + 30 + 0 + 0 + 0.02 + 0.005 = 30.025

(d) 2 × 100 + 1 × 10 + 1 × 1 + 9 × 1/10 + 0 × 1/100 + 2 × 1/1000

= 200 + 10 + 1 + 0.9 + 0 + 0.002 = 211.902

(e) 0 × 100 + 1 × 10 + 2 × 1 + 2 × 1/10 + 4 × 1/100 + 1 × 1/1000

= 0 + 10 + 2 + 0.2 + 0.04 + 0.001 = 12.241

3. Write the following decimals in the place value table:

(a) 0.29

(b) 2.08

(c) 19.60

(d) 148.32

(e) 200.812

Answer

	Numbers	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
		100	10	1	1/10	1/100	1/1000
(a)	0.29	0	0	0	2	9	0
(b)	2.08	0	0	2	0	8	0
(c)	19.60	0	1	9	6	0	0
(d)	148.32	1	4	8	3	2	0
(e)	200.812	2	0	0	8	1	2

4. Write each of the following as decimals:

(a) 20+9+4/10+1/100

(b) 137+5/100

(c) 7/10+6/100+4/1000

(d) 23+2/10+6/1000

(e) 700+20+5+9/100

Answer

(a) 20 + 9 + 0.4 + 0.01 = 29.41

(b) 137 + 0.05 = 137.05

(c) 0.7 + 0.06 + 0.004 = 0.764

(d) 23 + 0.2 + 0.006 = 23.206

(e) 700 + 20 + 5 + 0.09 = 725.09

5. Write each of the following decimals in words:

(a) 0.03

(b) 1.20

(c) 108.56

(d) 10.07

(e) 0.032

(f) 5.008

Answer

(a) Zero point zero three

(b) One point two zero

(c) One hundred and eight point five six

(d) Ten point zero seven

(e) Zero point zero three two

(f) Five point zero zero eight

6. Between which two numbers in tenths place on the number line does each of the given number line?

(a) 0.06

(b) 0.45

(c) 0.19

(d) 0.66

(e) 0.92

(f) 0.57

Answer

All the numbers lie between 0 and 1.

(a) 0.06 is nearer to 0.1.

(b) 0.45 is nearer to 0.5.

(c) 0.19 is nearer to 0.2.

(d) 0.66 is nearer to 0.7.

(e) 0.92 is nearer to 0.9.

(f) 0.57 is nearer to 0.6.

7. Write as fractions in lowest terms:

(a) 0.60

(b) 0.05

(c) 0.75

(d) 0.18

(e) 0.25

(f) 0.125

(g) 0.066

Answer

(a) 0.60 = 60/100=35

(b) 0.05 = 5/100=120

(c) 0.75 = 75/100=34

(d) 0.18 = 18/100=950

(e) 0.25 = 25/100=14

(f) 0.125 = 125/1000=18

(g) 0.066 = 66/1000=33500

NCERT 6th Maths Chapter 8, class 6 Maths Chapter 8 solutions

Exercise 8.3

1. Which is greater:

(a) 0.3 or 0.4

(b) 0.07 or 0.02

(c) 3 or 0.8

(d) 0.5 or 0.05

(e) 1.23 or 1.2

(f) 0.099 or 0.19

(g) 1.5 or 1.50

(h) 1.431 or 1.490

(i) 3.3 or 3.300

(j) 5.64 or 5.603

Answer

Before comparing, we write both terms in like decimals:

(a) 0.3 < 0.4

(b) 0.07 > 0.02

(c) 3.0 or 0.8 ⇒ 3.0 > 0.8

(d) 0.50 or 0.05 ⇒ 0.50 > 0.05

(e) 1.23 or 1.20 ⇒ 1.23 > 1.20

(f) 0.099 or 0.190 ⇒0.099 < 0.190

(g) 1.50 or 1.50 ⇒ 1.50 = 1.50

(h) 1.431 < 1.490

(i) 3.300 or 3.300 ⇒ 3.300 = 3.300

(j) 5.640 or 5.603 ⇒ 5.640 > 5.603

2. Make five more examples and find the greater:

(a) 1.8 or 1.82

(b) 1.0009 or 1.09

(c) 10.01 or 100.1

(d) 5.100 or 5.0100

(e) 04.213 or 0421.3

Answer

Before comparing, we write both the terms in like decimals

(i) 1.80 or 1.82 ⇒ 1.82 is greater than 1.8

(ii) 1.0009 or 1.0900 ⇒ 1.09 is greater than 1.0009

(iii) 10.01 or 100.10 ⇒ 100.1 is greater than 10.01

(iv) 5.1000 or 5.0100 ⇒ 5.100 is greater than 5.0100

(v) 04.213 or 0421.300 ⇒ 0421.3 is greater than 04.213

NCERT 6th Maths Chapter 8, class 6 Maths Chapter 8 solutions

Exercise 8.4

1. Express as rupees using decimals:

(a) 5 paise

(b) 75 paise

(c) 20 paise

(d) 50 rupees 90 paise

(e) 725 paise

Answer

(a) ∵ 1 paisa = Rs.1/100

∴ 5 paise = 1/100 × 5 = Rs. 0.05

(b) ∵ 1 paisa = Rs.1/100

∴ 75 paise = 1/100 × 5 = Rs. 0.75

(c) ∵ 1 paisa = Rs.1/100

∴ 20 paise = 1/100 × 5 = Rs. 0.05

(d) ∵ 1 paisa = Rs.1/100

∴Rs. 50 + 90 paise = 50 +1/100 × 90 = Rs. 50.90

(e) ∵ 1 paisa = Rs.1/100

∴ 725 paise = 1/100 × 725 =725/100 = Rs. 7.25

2. Express as meters using decimals:

(a) 15 cm

(b) 6 cm

(c) 2 m 45 cm

(d) 9 m 7 cm

(e) 419 cm

Answer

(a) ∵ 1 cm = 1/100 m

∴ 15 cm = 1/100 × 15 = 0.15 m

(b) ∵ 1 cm = 1/100 m

∴ 6 cm = 1/100 × 6 = 0.06 m

(c) ∵ 1 cm = 1/1000 m

∴2 m 45 cm = 2 + 1/100 × 45 = 2.45 m

(d) ∵ 1 cm = 1/100 m

∴ 9 m 7 cm = 9 +1/100 × 7 = 9.07 m

(e) ∵ 1 cm = 1/100m

∴ 419 cm = 1/100 × 419 = 419/00= 4.19 m

3. Express as cm using decimals:

(a) 5 mm

(b) 60 mm

(c) 164 mm

(d) 9 cm 8 mm

(e) 93 mm

Answer

(a) ∵ 1 mm = 1/10 cm

∴ 5 mm = 1/10 × 5 = 0.5 cm

(b) ∵ 1 mm = 1/10 cm

∴ 60 mm = 1/10 × 60 = 6 cm

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(c) ∵ 1 mm = 1/10 cm

∴ 164 mm = 1/10 × 164 = 16.4 cm

(d) ∵ 1 mm = 1/10 cm

∴ 9 cm 8 mm = 9 + 1/10 × 8 = 9 + 0.8 = 9.8 cm

(e) ∵ 1 mm = 1/10cm

∴ 93 mm = 1/10 × 93 = 9.3 cm

4. Express as km using decimals:

(a) 8 m

(b) 88 m

(c) 8888 m

(d) 70 km 5 m

Answer

(a) ∵ 1 m = 1/1000 km

∴ 8 m = 1/1000 × 8 = 0.008 km

(b) ∵ 1 m = 1/1000 km

∴ 88 m = 1/1000 × 88 = 0.088 km

(c) ∵ 1 m = 1/1000 km

∴ 8888 m = 1/1000 × 8888 = 8.888 km

(d) ∵ 1 m = 1/1000 km

∴ 70 km 5 m = 70 + 1/1000 × 5 = 70.005 km

5. Express as kg using decimals:

(a) 2 g

(b) 100 g

(c) 3750 g

(d) 5 kg 8 g

(e) 26 kg 50 g

Answer

(a) ∵ 1 g = 1/1000 kg

∴ 2 g = 1/1000 × 2 = 0.002 kg

(b) ∵ 1 g = 1/1000 kg

∴ 100 g = 1/1000 × 100 = 0.1 kg

(c) ∵ 1 g = 1/1000 kg

∴3750 g = 1/1000 × 3750 = 3.750 kg

(d) ∵1 g = 1/1000 kg

∴ 5 kg 8 g = 5 +1/1000 × 8 = 5.008 kg

(e) ∵ 1 g = 1/1000 kg

∴ 26 kg 50 g = 26 +1/1000 × 50 = 26.050 kg

NCERT 6th Maths Chapter 8, class 6 Maths Chapter 8 solutions

Exercise 8.5

1. Find the sum in each of the following:

(a) 0.007 + 8.5 + 30.08

(b) 15 + 0.632 + 13.8

(c) 27.076 + 0.55 + 0.004

(d) 25.65 + 9.005 + 3.7

(e) 0.75 + 10.425 + 2

(f) 280.69 + 25.2 + 38

Answer

(a)38.587

(b) 29.432

(c) 27.630

(d) 38.355

(e) 13.175

(f) 343.89

2. Rashid spent Rs. 35.75 for Maths book and Rs. 32.60 for Science book. Find the total amount spent by Rashid.

Answer

Money spent for Maths book = Rs. 35.75

Money spent for Science book = Rs. 32.60

Total money spent = Rs. 35.75 + Rs. 32.60 = Rs. 68.35

Therefore, total money spent by Rashid is Rs. 68.35.

3. Radhika's mother gave her Rs. 10.50 and her father gave her Rs. 15.80. Find the total amount given to Radhika by her parents.

Answer

Money given by her mother = Rs. 10.50

Money given by her father = Rs. 15.80

Total money received by Radha = Rs. 10.50 + Rs. 15.80 = Rs. 26.30

Therefore, total money received by Radha is Rs. 26.30.

4. Nasreen bought 3 m 20 cm cloth for her shirt and 2 m 5 cm cloth for her trouser. Find the total length of cloth bought by her.

Answer

Cloth bought for shirt = 3 m 20 cm = 3.20 m

Cloth bought for trouser = 2 m 5 cm = 2.05 m

Total length of cloth bought by Nasreen = 3.20 m + 2.05 m = 5.25 m

Therefore, total length of cloth bought by Nasreen is 5.25 m

5. Naresh walked 2 km 35 m in the morning and 1 km 7 m in the evening. How much distance did he walk in all?

Answer

Distance travelled in the morning = 2 km 35 m = 2.035 km

Distance travelled in the evening = 1 km 7 m = 1.007 km

Total distance travelled = 2.035 km + 1.007 km = 3.042 km

Therefore, total distance travelled by Naresh is 3.042 km.

6. Sunita travelled 15 km 268 m by bus, 7 km 7 m by car and 500 m on foot in order to reach her school. How far is her school from her residence?

Answer

Distance travelled by bus = 15 km 268 m = 15.268 km

Distance travelled by car = 7 km 7 m = 7.007 km

Distance travelled on foot = 500 m = 0.500 km

Total distance travelled = 15.268 m + 7.007 m + 0.500 m = 22.775 km

Therefore, total distance travelled by Sunita is 22.775 km.

7. Ravi purchases 5 kg 400 g rice, 2 kg 20 g sugar and 10 kg 850 g flour. Find the total weight of his purchases.

Answer

Weight of Rice = 5 kg 400 g = 5.400 kg

Weight of Sugar = 2 kg 20 g = 2.020 kg

Weight of Flour = 10 kg 850 g = 10.850 kg

Total weight = 5.400 kg + 2.020 kg + 10.850 kg = 18.270 kg

Therefore total weight of Ravi's purchase = 18.270 kg.

NCERT 6th Maths Chapter 8, class 6 Maths Chapter 8 solutions

Exercise 8.6

1. Subtract:

(a) 18.25 from 20.75

(b) 202.54 m from 250 m

(c) 5.36 from 8.40

(d) 2.051 km from 5.206 km

(e) 0.314 kg from 2.107 kg

Answer

(a) Rs. 2.50

(b) 47.46 m

(c) Rs. 3.04

(d) 3.155 km

(e) 1.793 kg

2. Find the value of:

(a) 9.756 – 6.28

(b) 21.05 – 15.27

(c) 18.5 – 6.79

(d) 11.6 – 9.847

Answer

(a) 3.476

(b) 5.78

(c) 11.71

(d) 1.753

3. Raju bought a book of Rs. 35.65. He gave Rs. 50 to the shopkeeper. How much money did he get back from the shopkeeper?

Answer

Total amount given to the shopkeeper = Rs. 50

Cost of book = Rs. 35.65

Amount left = Rs. 50.00 = Rs. 35.65 = Rs. 14.35

Therefore, Raju got back Rs. 14.35 from the shopkeeper.

4. Rani had Rs. 18.50. She bought one ice-cream for Rs. 11.75. How much money does she have now?

Answer

Total money = Rs. 18.50

Cost of Ice-cream = Rs. 11.75

Amount left = Rs. 18.50 – Rs. 11.75 = Rs. 6.75

Therefore, Rani has Rs. 6.75 now.

5. Tina had 20 m 5 cm long cloth. She cuts 4 m 50 cm length of cloth from this for making a curtain. How much cloth is left with her?

Answer

Total length of the cloth = 20 m 5 cm = 20.05 m

Length of the cloth used = 4 m 50 cm = 4.50 m

Remaining cloth = 20.05 m – 4.50 m = 15.55 m

Thereofre, 15.55 m of cloth is left with Tina.

6. Namita travels 20 km 50 m every day. Out of this she travels 10 km 200 m by bus and the rest by auto. How much distance does she travel by auto?

Answer

Total distance to travel everyday = 20 km 50 m = 20.050 km

Distance travelled by bus = 10 km 200 m = 10.200 km

Distance travelled by auto = 20.050 km – 10.200 km = 9.850 km

Therefore, 9.850 km distance is travelled by auto everyday.

7. Aakash bought vegetables weighing 10 kg. Out of this 3 kg 500 g in onions, 2 kg 75 g is tomatoes and the rest is potatoes. What is the weight of the potatoes?

Answer

Weight of onions = 3 kg 500 g = 3.500 kg

Weight of tomatoes = 2 kg 75 g = 2.075 kg

Total weight of onions and tomatoes = 3.500 kg + 2.075 kg = 5.575 kg

Therefore, weight of potatoes = 10.000 kg – 5.575 kg= 4.425 kg

Thus, weight of potatoes is 4.425 kg.

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