

# NCERT SOLUTIONS

**CLASS - 6TH**



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Class : 6th  
Subject : Maths  
Chapter : 1  
Chapter Name : KNOWING OUR NUMBERS

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Exercise 1.1

Q1 Fill in the blanks:

- (a) 1 lakh = \_\_\_\_\_ ten thousand.
- (b) 1 million = \_\_\_\_\_ hundred thousand.
- (c) 1 crore = \_\_\_\_\_ ten lakh.
- (d) 1 crore = \_\_\_\_\_ million.
- (e) 1 million = \_\_\_\_\_ lakh.

Answer. (a) 1 lakh = 10 ten thousand.

( 1 lakh = 1,00,000 and ten thousand = 10,000 )

(b) 1 million = 10 hundred thousand.

( 1 million = 1,000,000 and 1 hundred thousand = 1,00,000 )

(c) 1 crore = 10ten lakh.

( 1 crore = 1,00,00,000 and Ten lakh = 10,00,000 )

(d) 1 crore = 10 million.

( 1 crore = 1,00,00,000 and 1 million = 1,000,000 )

(e) 1 million = 10lakh.

( 1 million = 1,000,000 and 1 lakh = 1,00,000 )

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Q2 Place commas correctly and write the numerals:

- (a) Seventy three lakh seventy five thousand three hundred seven.
- (b) Nine crore five lakh forty one.
- (c) Seven crore fifty two lakh twenty one thousand three hundred two.
- (d) Fifty eight million four hundred twenty three thousand two hundred two.
- (e) Twenty three lakh thirty thousand ten.

Answer. (a) 73,75,307

(b) 9,05,00,041

- (c) 7,52,21,302
- (d) 58,423,202
- (e) 23,30,010

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Q3 Insert commas suitably and write the names according to Indian System of Numeration :

- (a) 87595762
- (b) 8546283
- (c) 99900046
- (d) 98432701

Answer. (a) 8,75,95,762

Eight crore seventy five lakh ninety five thousand seven hundred sixty two.

- (b) 85,46,283

Eighty five lakh forty six thousand two hundred eighty three.

- (c) 9,99,00,046

Nine crore ninety nine lakh forty six

- (d) 9,84,32,701

Nine crore eighty four lakh thirty two thousand seven hundred one.

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Q4 Insert commas suitably and write the names according to International System of Numeration :

- (a) 78921092
- (b) 7452283
- (c) 99985102
- (d) 48049831

Answer. (a) 78,921,092

Seventy eight million nine hundred twenty one thousand ninety two

- (b) 7,452,283

Seven million four hundred fifty two thousand two hundred eighty three

- (c) 99,985,102

Ninety nine million nine hundred eighty five thousand one hundred two.

- (d) 48,049,831

Forty eight million forty nine thousand eight hundred thirty one.

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## Exercise 1.2

Q1 A book exhibition was held for four days in a school. The number of tickets sold at the counter on the first, second, third and final day was respectively 1094, 1812, 2050 and 2751. Find the total number of tickets sold on all the four days.

Answer. Tickets sold on 1st day = 1094

Tickets sold on 2nd day = 1812

Tickets sold on 3rd day = 2050

Tickets sold on 4th day = 2751

Total tickets sold = 1094 + 1812 + 2050 + 2751

$$\begin{array}{r}
 1094 \\
 1812 \\
 2050 \\
 +2751 \\
 \hline
 7707
 \end{array}$$

∴ Total tickets sold = 7,707

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Q2 Shekhar is a famous cricket player. He has so far scored 6980 runs in test matches. He wishes to complete 10,000 runs. How many more runs does he need?

Answer. Runs scored so far = 6980

Runs Shekhar wants to score = 10,000

More runs required = 10,000 - 6980

$$\begin{array}{r}
 10000 \\
 - 6980 \\
 \hline
 3020
 \end{array}$$

∴ Shekhar requires 3,020 more runs.

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Q3 In an election, the successful candidate registered 5,77,500 votes and his nearest rival secured 3,48,700 votes. By what margin did the successful candidate win the election?

Answer. Votes secured by successful candidate = 5,77,500

Votes secured by rival = 3,48,700

Margin = 5,77,500 - 3,48,700

$$\begin{array}{r} 577500 \\ -348700 \\ \hline 228800 \end{array}$$

$\therefore$  Margin = 2,28,800

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Q4 Kirti bookstore sold books worth 2,85,891 in the first week of June and books worth 4,00,768 in the second week of the month. How much was the sale for the two weeks together? In which week was the sale greater and by how much?

Answer. Value of Books sold in 1st week = Rs 2,85,891

Value of books sold in 2nd week = Rs 4,00,768

Total sale = Sale in 1st week + Sale in 2nd week = 2,85,891 + 4,00,768

$$\begin{array}{r} 285891 \\ +400768 \\ \hline 686659 \end{array}$$

The sale for the two weeks together was 6,86,659.

Since 4,00,768 > 2,85,891, sale in 2nd week was greater than 1st week.

$$\begin{array}{r} 400768 \\ -285891 \\ \hline 114877 \end{array}$$

$\therefore$  The sale in 2nd week was larger than the sale in 1st week by Rs 1,14,877.

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Q5 Find the difference between the greatest and the least 5-digit number that can be written using the digits 6, 2, 7, 4, 3 each only once.

Answer. Greatest number = 76432

Smallest number = 23467

Difference = 76432 - 23467

$$\begin{array}{r} 76432 \\ -23467 \\ \hline 52965 \end{array}$$

Therefore, the difference between the greatest and the least number that can be written using the digits 6, 2, 7, 4, 3 each only once is 52,965.

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Q6 A machine, on an average, manufactures 2,825 screws a day. How many screws did it produce in the month of January 2006?

Answer. Screws produced in one day = 2,825

Days in January = 31

Screws produced in 31 days = 2825 x 31

$$\begin{array}{r} 2825 \\ \times 31 \\ \hline 2825 \\ +84750 \\ \hline 87575 \end{array}$$

Therefore, screws produced during Jan, 06 = 87,575

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Q7 A merchant had 78,592 with her. She placed an order for purchasing 40 radio sets at 1200 each. How much money will remain with her after the purchase?

Answer. Cost of one radio set = Rs 1200

Cost of 40 radio sets = 1200 x 40 Rs 48000

Money with Merchant = Rs 78,592

Money spent = Rs 48,000

Money left = 78592 - 48000 78592 - 48000

$$\begin{array}{r} 78592 \\ -48000 \\ \hline 30592 \end{array}$$

Therefore, Rs 30,592 will remain with her after the purchase.

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Q8 A student multiplied 7236 by 65 instead of multiplying by 56. By how much was his

answer greater than the correct answer? (Hint: Do you need to do both the multiplications?)

Answer. Difference between 65 and 56 = 9

Difference in the answer =  $7236 \times 9$

$$\begin{array}{r} 7236 \\ \times 9 \\ \hline 65124 \end{array}$$

Therefore, His answer was greater than the correct answer by 65,124.

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Q9 To stitch a shirt, 2 m 15 cm cloth is needed. Out of 40 m cloth, how many shirts can be stitched and how much cloth will remain?

(Hint: convert data in cm.)

Answer. 2 m 15 cm = 215 cm (1 m = 100 cm) 40 m =  $40 \times 100 = 4000$  cm

Cloth required for one shirt = 215 cm

Number of shirts that can be stitched out of 4000 cm =  $4000 \div 215$

$$\begin{array}{r} 18 \\ 215 \overline{)4000} \\ \underline{215} \\ 1850 \\ \underline{1720} \\ 130 \end{array}$$

Therefore, 18 shirts can be made. 130 cm, i.e. 1 m 30 cm, cloth will remain.

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Q10 Medicine is packed in boxes, each weighing 4 kg 500g. How many such boxes can be loaded in a van which cannot carry beyond 800 kg?

Answer. 1 kg = 1000 g

4 kg 500 g = 4500 g

800 kg =  $8 \times 1000 = 800000$  g

Number of boxes that can be loaded in the van =  $800000 \div 4500$

$$\begin{array}{r}
 177 \\
 4500 \overline{)800000} \\
 \underline{4500} \\
 35000 \\
 \underline{31500} \\
 35000 \\
 \underline{31500} \\
 3500
 \end{array}$$

Hence, 177 boxes at maximum can be loaded in the van.

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Q11 The distance between the school and a student's house is 1 km 875 m. Everyday she walks both ways. Find the total distance covered by her in six days.

Answer. Distance between school and house = 1 km 875 m

Now, 1 km = 1000 m

Distance covered each day =  $1875 \times 2 = 3750$  m

Distance covered in 6 days =  $3750 \times 6$

$$\begin{array}{r}
 3750 \\
 \times 6 \\
 \hline
 22500
 \end{array}$$

Therefore, distance covered in 6 days = 22,500 m = 22.5 or 22 km 500 m

Page : 17 , Block Name : Exercise 1.2

Q12 A vessel has 4 litres and 500 ml of curd. In how many glasses, each of 25 ml capacity, can it be filled?

Answer. Capacity of vessel = 4 l 500 ml = 4500 ml (1 l = 1000 ml)

Capacity of a glass = 25 ml

Number of glasses that can be filled =  $4500 \div 25$



$$\begin{array}{r}
 180 \\
 25 \overline{)4500} \\
 \underline{25} \phantom{00} \\
 200 \phantom{0} \\
 \underline{200} \\
 \phantom{00} \times \\
 \hline
 \end{array}$$

$\therefore$  180 glasses can be filled.

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### Exercise 1.3

Q1 Estimate each of the following using general rule:

(a)  $730 + 998$

(b)  $796 - 314$

(c)  $12,904 + 2,888$

(d)  $28,292 - 21,496$

Make ten more such examples of addition, subtraction and estimation of their outcome.

Answer. (a)  $730 + 998$

By rounding off to hundreds, 730 rounds off to 700 and 998 rounds off to 1000.

$$\begin{array}{r}
 700 \\
 +1000 \\
 \hline
 1700 \\
 \hline
 \end{array}$$

(b)  $796 - 314$

By rounding off to hundreds, 796 rounds off to 800 and 314 rounds off to 300.

$$\begin{array}{r}
 800 \\
 -300 \\
 \hline
 500 \\
 \hline
 \end{array}$$

(c)  $12904 + 2822$

By rounding off to thousands, 12904 rounds off to 13000 and 2822 rounds off to 3000.

$$\begin{array}{r}
 13000 \\
 +3000 \\
 \hline
 16000 \\
 \hline
 \end{array}$$

(d)  $28,296 - 21,496$

By rounding off to nearest thousands, 28296 rounds off to 28000 and 21496 rounds off to 21000.

$$\begin{array}{r} 28000 \\ -21000 \\ \hline 7000 \end{array}$$

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Q2 Give a rough estimate (by rounding off to nearest hundreds) and also a closer estimate (by rounding off to nearest tens) :

(a)  $439 + 334 + 4,317$

(b)  $1,08,734 - 47,599$

(c)  $8325 - 491$

(d)  $4,89,348 - 48,365$

Make four more such examples.

Answer. (a)  $439 + 334 + 4317$

Rounding off to nearest hundreds, 439, 334, and 4317 may be rounded off to 400, 300, and 4300 respectively.

$$\begin{array}{r} 400 \\ 300 \\ +4300 \\ \hline 5000 \end{array}$$

Rounding off to nearest tens, 439, 334, and 4317 may be rounded off to 440, 330, and 4320 respectively.

$$\begin{array}{r} 440 \\ 330 \\ +4320 \\ \hline 5090 \end{array}$$

(b)  $1,08,734 - 47,599$

Rounding off to hundreds, 1,08,734 and 47,599 may be rounded off to 1,08,700 and 47,600 respectively.

$$\begin{array}{r} 108700 \\ -47600 \\ \hline 6100 \end{array}$$

Rounding off to hundreds, 1,08,734 and 47,599 may be rounded off to 1,08,730 and

47,600 respectively.

$$\begin{array}{r} 108730 \\ -47600 \\ \hline 61130 \end{array}$$

(c) 8325 - 491

Rounding off to hundreds, 8325 and 491 may be rounded off to 8300 and 500 respectively.

$$\begin{array}{r} 8300 \\ -500 \\ \hline 7800 \end{array}$$

Rounding off to tens, 8325 and 491 may be rounded off to 8330 and 490 respectively.

$$\begin{array}{r} 8330 \\ -490 \\ \hline 7840 \end{array}$$

(d) 4,89,348 - 48,365

Rounding off to hundreds, 489348 and 48365 may be rounded off to 489300 and 48400 respectively.

$$\begin{array}{r} 489300 \\ -48400 \\ \hline 440900 \end{array}$$

Rounding off to tens, 489348 and 48365 may be rounded off to 489350 and 48370 respectively.

$$\begin{array}{r} 489350 \\ -48370 \\ \hline 440980 \end{array}$$

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Q3 Estimate the following products using general rule:

(a)  $578 \times 161$

(b)  $5281 \times 3491$

(c)  $1291 \times 592$

(d)  $9250 \times 29$

Make four more such examples.

Answer. (a)  $578 \times 161$

Rounding off by general rule, 598 and 161 may be rounded off to 600 and 200

respectively.

$$\begin{array}{r} 600 \\ \times 200 \\ \hline 120000 \end{array}$$

(b)  $5281 \times 3491$

Rounding off by general rule, 5281 and 3491 may be rounded off to 5000 and 3000 respectively.

$$\begin{array}{r} 5000 \\ \times 3000 \\ \hline 15000000 \end{array}$$

(c)  $1291 \times 592$

Rounding off by general rule, 1291 and 592 may be rounded off to 1000 and 600 respectively.

$$\begin{array}{r} 1000 \\ \times 600 \\ \hline 600000 \end{array}$$

(d)  $9250 \times 29$

Rounding off by general rule, 9250 and 29 may be rounded off to 9000 and 30 respectively.

$$\begin{array}{r} 9000 \\ \times 30 \\ \hline 270000 \end{array}$$

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