

# Ch-2 Estimation

## WORKSHEET

1 Round off to the nearest ten

i  $453 - 450$

ii  $7326 - 7330$

iii  $24712 - 24710$

2 Round off to the nearest hundred

i  $847 - 800$

ii  $4972 - 5000$

iii  $62253 - 62300$

3 Round off to the nearest thousand

i  $4507 - 5000$

ii  $18297 - 18000$

iii  $25716 - 26000$

4 Estimate the Product & verify by actual calculation.

a.  $38 \times 7$

$$\begin{array}{r} \rightarrow a) 38 \\ \times 7 \\ \hline 266 \end{array}$$

$$b) 38 = 40 \\ 7 = 10$$

$$\begin{array}{r} 40 \\ \times 10 \\ \hline 00 \\ + 40 \\ \hline 400 \end{array}$$

b.  $45 \times 67$

$$\begin{array}{r} \rightarrow a) 45 \\ \times 67 \\ \hline 315 \\ + 270 \\ \hline 3015 \end{array}$$

$$b) 45 = 50 \\ 67 = 70$$

$$\begin{array}{r} 50 \\ \times 70 \\ \hline 00 \\ + 350 \\ \hline 3500 \end{array}$$

c.  $225 \times 8$

$$\begin{array}{r} \rightarrow a) 225 \\ \times 8 \\ \hline 1800 \end{array}$$

$$b) 225 = 230 \\ 8 = 10$$

$$\begin{array}{r} 230 \\ \times 10 \\ \hline 000 \\ + 230 \\ \hline 2300 \end{array}$$

d  $48 \times 73$

$$\begin{array}{r} \text{a) } 48 \\ \times 73 \\ \hline 144 \\ + 336 \\ \hline 3504 \end{array}$$

$$\begin{array}{r} \text{b) } 48 = 50 \quad 50 \\ 73 = 70 \quad + 10 \\ \hline 00 \\ + 350 \\ \hline 3500 \end{array}$$

e  $602 \times 45$

$$\begin{array}{r} \text{a) } 602 \\ \times 45 \\ \hline 3010 \\ + 248 \\ \hline 5490 \end{array}$$

$$\begin{array}{r} \text{b) } 602 = 600 \quad 600 \\ 45 = 50 \quad \times 50 \\ \hline 000 \\ + 300 \\ \hline 3000 \end{array}$$

5 Choose the best estimate from the possible answers given

a  $3 \times 52 = (120, 150, 180)$   
150

b  $7 \times 31 = (210, 250, 280)$   
210

c  $2 \times 698 = (1000, 1200, 1400)$   
1400

d  $2 \times 88 = (150, 180, 200)$   
180

6 Estimate the sums by rounding off to the nearest thousand

i  $7789 - 569 = 7431$

ii  $8976 + 4356 = 13000$

iii  $5463 \times 768 = 3840000$

7 Estimate each of the following using general rule

a  $730 + 998 = 1728$

b  $769 - 314 = 455$

c  $12,094 + 2888 = 14982$

d  $2822 - 21496 = 6796$

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

a  $439 + 334 + 4317$

-> ten- 440

- 330

- 4320

440

330

+ 4320

4990

-> hundred- 400

- 300

- 4300

400

300

+ 4300

5000

b.  $108,734 - 47,599$

ten  $\rightarrow$  108730  
47600

$$\begin{array}{r} 10 \\ 108730 \\ - 47600 \\ \hline 61130 \end{array}$$

hundred  $\rightarrow$  108700  
47600

$$\begin{array}{r} 010 \\ 108700 \\ - 47600 \\ \hline 61100 \end{array}$$

c.  $8325 - 491$

ten  $\rightarrow$  8320  
490

$$\begin{array}{r} 7123 \\ 8320 \\ - 490 \\ \hline 7840 \end{array}$$

hundred  $\rightarrow$  8300  
500

$$\begin{array}{r} 713 \\ 8300 \\ - 500 \\ \hline 7800 \end{array}$$

d.  $489,348 - 48,365$

ten  $\rightarrow$  489350  
48370

$$\begin{array}{r} 8125 \\ 489350 \\ - 48370 \\ \hline 440980 \end{array}$$

hundred  $\rightarrow$  489300  
48400

$$\begin{array}{r} 813 \\ 489300 \\ - 48400 \\ \hline 440900 \end{array}$$

9 estimate the following products using general rule

a  $578 \times 161$   
93058

b  $5281 \times 3491$   
18435971

c  $1291 \times 592$   
764272

10 Find the largest number formed by the digit 4, 3, 0, 9 round off to the nearest thousand

largest number  $\rightarrow$  9430

nearest thousand  $\rightarrow$  9000

11 There are about 310 Passengers in each car of the city train. As there are 8 cars for each train, there are 8 cars about 2400 Passengers on each train

- a) 240      b) 2400      c) 2004

12 The first bus had 96 Passengers and the second bus had 107 Passengers. There are about 200 Passengers in total.

- a) 100      b) 150      c) 200

13 In the morning, there are about 452 Planes taking off from the airport & 121 of the Planes are delayed for more than 15 min. About 330 Planes take off within 15 min of the scheduled time.

a) 450      b) 130      c) 330

14 The distance between two bus terminals is 390 km. It takes the bus 4 hrs to go from one terminal to another. The speed of the bus is about 100 km per hr.

a) 100      b) 10      c) 386

15 In a city there are 45960 electric cars and 96113 gas cars. There are about 500 more gas cars than electric cars.

a) 5000      b) 50000      c) 5100

16 list all the no which can be round off to 30.

→ 25, 26, 27, 28, 29, 30, 31, 32, 33, 34

17 list all the no which can be round off to 50.

→ 45, 46, 47, 48, 49, 50, 51, 52, 53, 54

18 Write the smallest and the largest no which are round off to 90

Smallest - 89

largest - 94

19 Write the smallest and the largest no which are round off to 130

Smallest - 125

largest - 134