

CHAPTER: 06 [MATHS: INTEGERS]

Solved ASSIGNMENT OF TERM I (2021)

Exercise 6.1

Q=1 write opposite of the following:

- (a) Decrease in weight by 3kg (c) Deposits of Rs 5500
sol. Increase in weight by 3kg sol. Withdrawal of Rs 5500

Q=2 Indicate each of the following statements by positive or negative integer.

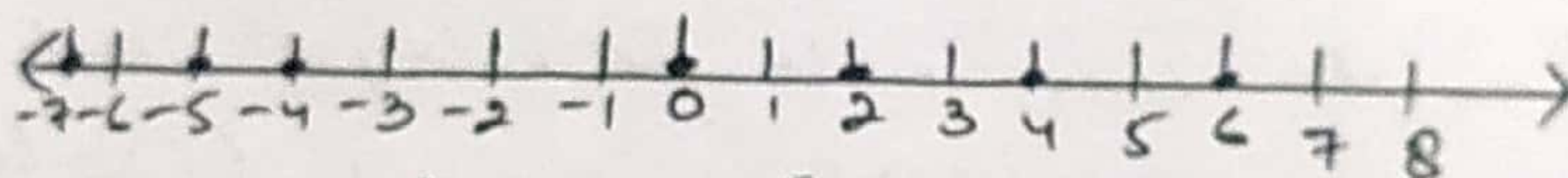
- (a) A deposit of Rs 1200 in a bank account. (solution) + Rs 1200
(c) A loss of Rs 400 in a Transaction. (solution) - Rs 400

Q=3 Write $>$ or $<$ in $\square$ in each of the following.

- (a) $0 \square -7$ (c) $8 \square -4$

Q=4 Draw a number line and mark the following integers on it. $[-7, 4, 2, -5, 0, 6, -4]$

Solution



Q=5 In the following pairs of integers which one is greater?

- (a) $-20, -5$ (c) -76 and 64

sol. -5 is greater

sol. 64 is greater

Q=6 Do your self.

Q=7 Write any (a) five integers less than 2 (b) five integers greater than -7

sol (a) $1, 0, -1, -2, -3$

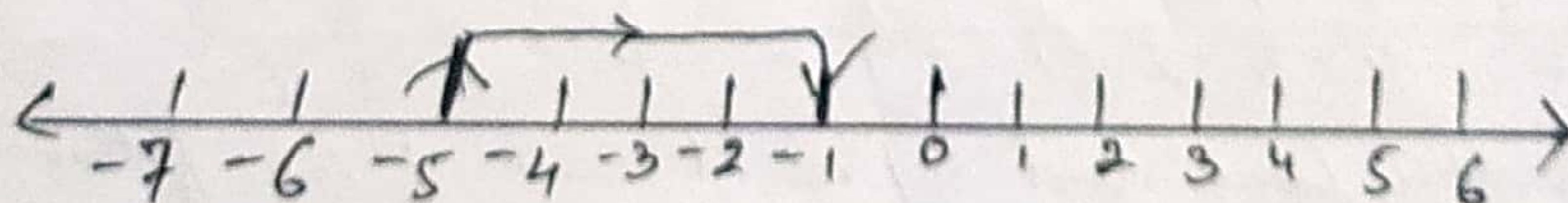
(sol) (b) $-6, -5, -4, -3, -2$

Q=8 Draw a number line and mark on it the integers which is:

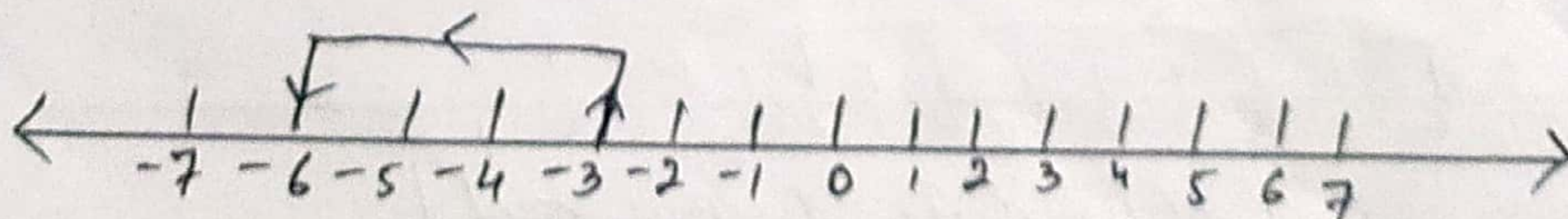
- (a) 4 more than -5

- (b) 3 less than -3

sol (a)



sol (b)



Q=9 Which integer in each of the following pairs is to the left of the other on the number line?

(a) $-3, -7 \rightarrow$ (sol) -7 is to the left of -3 .

(c) $3, -6 \rightarrow$ (sol) -6 is to the left of 3 .

Q=10 Write all the integers between -8 and -15 , in decreasing order.

(sol) Integers between -8 to -15 in decreasing order are $-9, -10, -11, -12, -13$ and -14

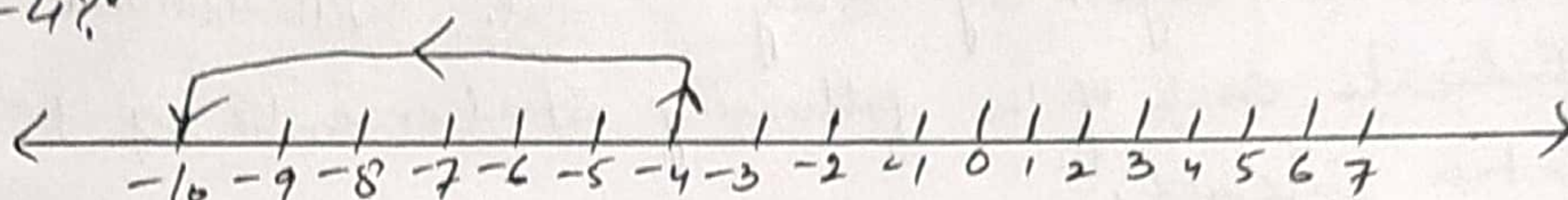
Q=11 Do your self.

Q=12 Do your self.

Q=13 Draw a number line and answer the following:

(a) Which integer will we reach if we move 6 numbers to the left of -4 ?

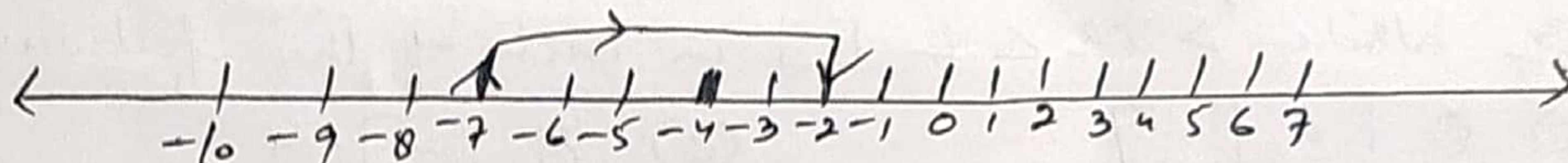
Solution-



$= -10$

(b) If we are at -7 on the number line, in which direction should we move to reach -2 ?

Solution-



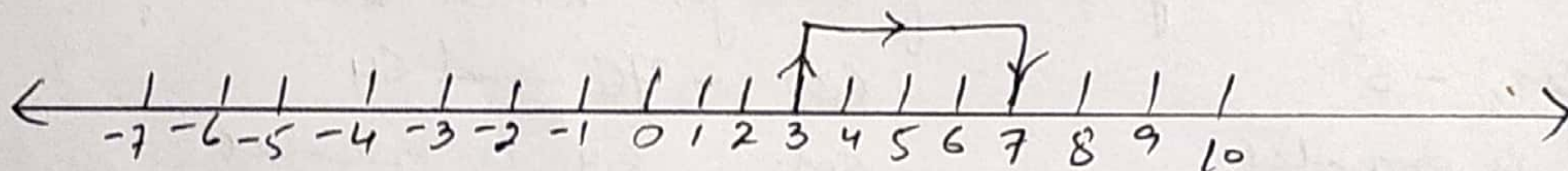
In the right direction.
 $\approx 0 \approx$

Exercise 6.2

Q=1 Using the number line, write the integer which is:

(a) 4 more than 3 (c) 8 more than -9 (f) 3 less than -3

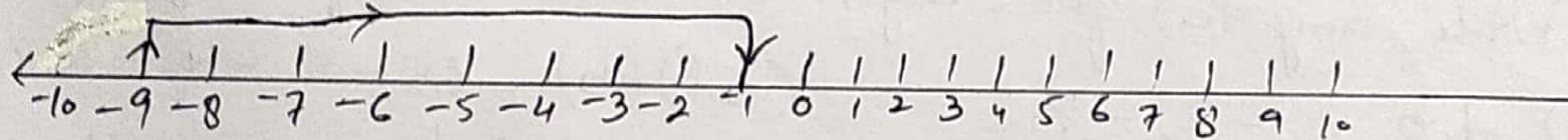
Sol (a)



$= 3 + 4 = 7$

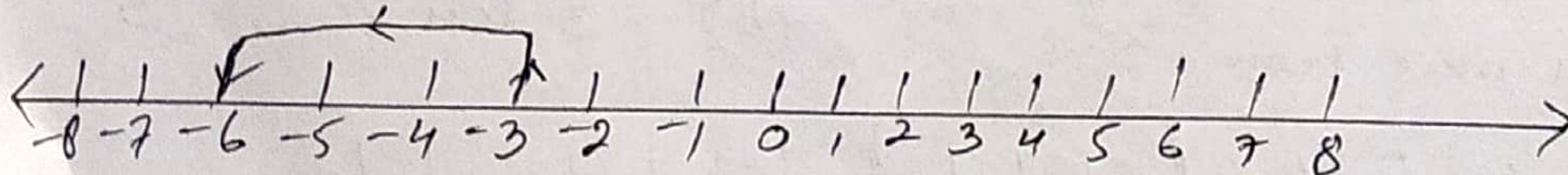
Sol (c)

$$-9 + 8 = -1$$



Sol f

$$-3 - 3 = -6$$



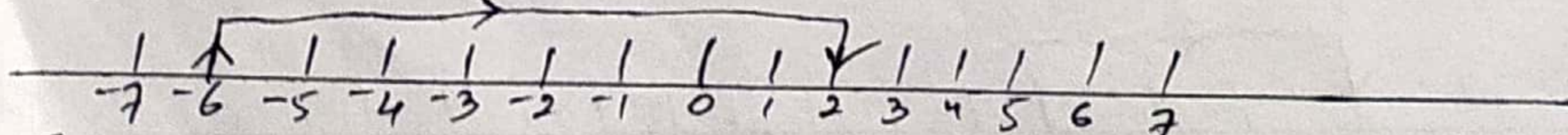
Q=2

Draw a number line and represent each of the following on it!

(a)

$$-6 + 8 \rightarrow 2$$

Sol



[NOTE:- Rest of the parts do your self]

Q=3 Without using the number line, Find the Sum:-

(a) $(-6) + (-9) \rightarrow$ (sol) $-6-9 = -15$

(c) $(-25) + (20) \rightarrow$ (sol) $-25+20 = -5$

Q=4 Find the Sum: (a) 37, -24 and 13

(sol) $37 + (-24) + 13 = 37 - 24 + 13 = 37 + 13 - 24 = 50 - 24 = 26$

Q=5 Find the Sum (a) $(-36) + (-22) + 46$

(sol) $-36 - 22 + 46 = -58 + 46 = -12$

Q=6 Do your self.

Q=7 Find the Sum (a) $126 + (-366) + (-962) + 172$

$= 126 - 366 - 962 + 172 = 126 + 172 - 366 - 962 = 298 - 1328 = -1030$

Q=8 A girl travelled 14km to the east of Mumbai and then 23km to the west from that point. How far from Mumbai was she finally?

Solution East of Mumbai = 14 km

West from that point = 23 km

So, she was far from Mumbai = $+14 - 23 \text{ km} = -9 \text{ km}$

So, she was finally 9 km far from Mumbai (Towards west)

Q=9 Rangan deposited Rs 1720 in his account on Monday and then withdrew Rs 850 on Tuesday. Next day, he again withdrew Rs 500. What was his balance?

Solution Deposited in the account = Rs 1720

Withdrew from the account = Rs 850

Again withdrew from the account = Rs 500

So, balance = $\text{Rs } 1720 - \text{Rs } 850 - \text{Rs } 500$

$= \text{Rs } 1720 - \text{Rs } 1350$

$= \text{Rs } 370$

Q=10 A point P on the top of a mountain is 5600m above the sea level and a point Q is 3600m below the sea level. Find the distance PQ.

Solution Distance of PQ = $5600\text{m} + 3600\text{m} = 9200\text{m}$

Exercise 6.3

Q=1 Find

(a) $8 - (-3)$
 $= 8 + 3 = 11$

(c) $10 - (-15)$
 $= 10 + 15 = 25$

(e) $101 - 1001$ (K) $32 - (-20)$
 $= -900$ $= 32 + 20 = 52$

Q=2 Find (a) $(-71) - 80 - (-5)$

(c) $(-91) + (-70) + (-86)$

sol $-71 - 80 + 5 = -151 + 5 = -146$

sol $-91 - 70 - 86 = -91 - 70 - 86 = -247$

Q=3 Fill in the blanks

(a) $12 + (-12) = 0$ (c) $(5) - (+15) = -10$ (d) $(-256) + (-140) = -396$

[NOTE:- Rest of the parts do your self]

P.T.O

Q24 Subtract -5 from 8 and then 8 from -5. Are the two results same?

Solution $8 - (-5) = 8 + 5 = 13$

But $-5 - (8) = -5 - 8 = -13$

So, results are not same.

Q25 Subtract The sum of -230 and 169 from -25

Solution $-230 + 169 = -61$, Now $= -25 - (-61) = -25 + 61 = 36$

Q26 Do your self

Q27 The sum of two integers is 148. If one of the integers is -124.

Determine the other.

Solution Other integer = Sum of Two integers - One integer
 $= 148 - (-124)$
 $= 148 + 124 = 272$

Q28 The sum of two integers is -39. If one of them is 16, determine the other.

Solution Other integer = Sum of Two integers - One integer
 $= -39 - 16 = -55$

Q29 Do your self

Q30 A place is 637m above the sea level and another is 215m below sea level. What is the distance between the two places?

Solution Distance above the sea level = 637m, Distance below the sea level = 215m

So, distance between the two places = $637m + 215m = 852m$

Q31 Do your self

Q32 If $\star$ is an operation on integers such that $a \star b = -a - (-b) + 2$ for all integers. Find (a) $4 \star 3$ (c) $7 \star (-6)$

Solution (a) $4 \star 3 = -4 - (-3) + 2$
 $= -4 + 3 + 2$
 $= -4 + 5 = 1$

Solution $7 \star (-6) = -7 - [-(-6)] + 2$
 $= -7 - [6] + 2$
 $= -7 - 6 + 2 = -13 + 2$
 $= -11$

Q33 Which of the following statements are true.

(a) on book (b) on book (c) on book (d) on book (e) on book

Solution Statements (a), (b), (d) and (e) are true

Q34 A man bought some pens for Rs 180 and pencils for Rs 60. The next day, he again bought some pencils for Rs 50. Then, he sold all the pencils for Rs 40 and the pens for Rs 140. What was his net gain or loss?

Solution

Pens	Pencils
Rs 180	Rs 60
	Rs 50

Total $Rs 180 + Rs 110 = Rs 290$

He sold pencils for Rs 40 and pens for Rs 140. Total amount = Rs 180

Loss = $Rs 290 - Rs 180 = Rs 110$

[Sharpen your Understanding On Book Page No. 116]

[NOTE: Rest of the parts do your self]

CHAPTER :- 07

FRACTIONS

Exercise :- 7.1

Q1 For each of the following figures, write down the fractions for the shaded and the unshaded part.

(a) fig on book
 sol. shaded part $\frac{1}{4}$
 unshaded part $\frac{3}{4}$

(c) fig on book
 sol. shaded part $\frac{3}{8}$
 unshaded part $\frac{5}{8}$

(d) fig on book
 sol. shaded part $\frac{2}{5}$
 unshaded part $\frac{3}{5}$

Q2 Do your self.

Q3 Write the fractions for the shaded part of each of the following collection.

(a) fig on book
 sol. $\frac{5}{6}$

(c) fig on book
 sol. $\frac{4}{8}$

(d) fig on book
 sol. $\frac{2}{3}$

Q4 Determine the fractions in which numerator is greater than the denominator:

$\frac{3}{7}, \frac{15}{9}, \frac{7}{10}, \frac{11}{9}, \frac{5}{13}, \frac{7}{8}, \frac{6}{5}, \frac{4}{3}$

Solution $\frac{15}{9}, \frac{11}{9}, \frac{6}{5}$ and $\frac{4}{3}$

Q5 Do your self.

Q6 What fraction of a day are 5 hours?

Solution 24 hours = 1 day $\therefore$ 5 hours = $\frac{5}{24}$ day
 so fraction = $\frac{5}{24}$

Q7 What fraction of a year are 6 months

Solution 12 months = 1 year $\therefore$ 6 months = $\frac{6}{12}$, so fraction = $\frac{6}{12}$

Q8 Write the natural numbers from 2 to 12. What fraction of them are prime numbers?

Solution Required natural numbers : 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

prime numbers are 5 out of them $\rightarrow$ 2, 3, 5, 7, 11

$\therefore$ Fraction of prime numbers = $\frac{5}{11}$

Q9 What fraction of an hour are 10 minutes?

Solution 60 minutes = 1 hour $\therefore$ 10 minutes = $\frac{10}{60}$, so fraction = $\frac{10}{60}$

Q10 Anita has 20 eggs. She uses $\frac{1}{5}$ of them for making pastry. How many eggs does she use?

Solution Anita uses eggs = $\frac{1}{5}$ of 20 eggs $\Rightarrow \frac{1}{5} \times 20 \Rightarrow 4$ eggs

Q11 Namrita had Rs 60 with her. She gave $\frac{1}{2}$ of them to her younger brother. How many rupees did she give to him?

Solution Total Money = Rs 60, She gave to her brother = $\frac{1}{2}$ of Rs 60
 $\Rightarrow \frac{1}{2} \times 60 = \text{Rs } 30$

[NOTE :- Rest parts do your self]

P.T.O

Q=12 Do your self

Q=13 From mother bought 5l of milk in the morning. During the whole day, she could use only 3l of it. What fraction of the milk did she use?

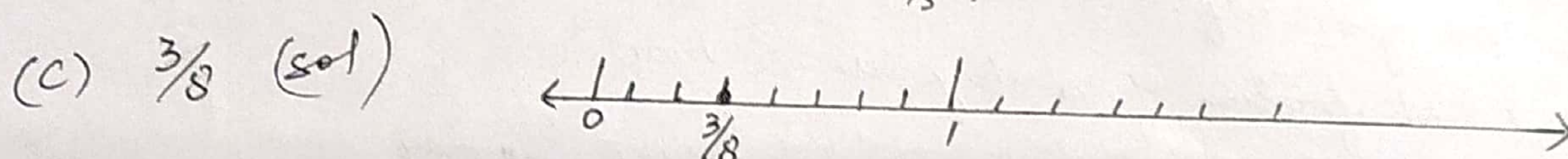
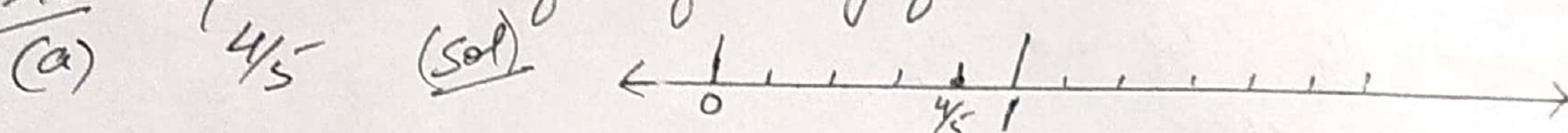
Solution Total quantity of milk = 5l, Mother used = 3l
So, fraction of the milk used = $\frac{3}{5}$

Q=14 Find (a) $\frac{2}{3}$ of 15 (c) $\frac{4}{9}$ of 45 (e) $\frac{11}{13}$ of 65

Solution $\frac{2}{3} \times 15 = 10$ Sol. $\frac{4}{9} \times 45 = 20$ Sol. $\frac{11}{13} \times 65 = 55$

Q=15 Do your self

Q=16 Represent each of the following fractions on the number line:



Q=17 Do your self (Q=18) Do your self
 $\approx 0 \approx 0 \approx$

Exercise 7.2

Q=1 Write the following proper fractions:

(a) Containing numerator 5 and denominator 11 $\rightarrow$ (sol.) $\frac{5}{11}$

(c) Containing numerator 2 less than denominator $\rightarrow$ (sol.) $\frac{2}{4}$

Q=2 Express the following as mixed fractions:

(a) $\frac{18}{5} \rightarrow$ (sol.) $3\frac{3}{5}$ (c) $\frac{23}{4} \rightarrow$ (sol.) $5\frac{3}{4}$
 $\rightarrow Q \frac{R}{D}$ $\rightarrow Q \frac{R}{D}$

(a) $\frac{18}{5} = 5 \overline{) 18} \begin{array}{r} 3R \\ 15 \\ \hline \end{array}$

(c) $\frac{23}{4} = 4 \overline{) 23} \begin{array}{r} 5R \\ 20 \\ \hline \end{array}$

Rough

Q=3 Express the following as Improper fractions:

(a) $5\frac{1}{4} \rightarrow$ (sol.) $\frac{5 \times 4 + 1}{4} = \frac{20 + 1}{4} = \frac{21}{4} \rightarrow \left[\frac{\text{Wh. No.} \times D + N}{\text{Denominator}} \right]$

(c) $7\frac{1}{3} \rightarrow$ (sol.) $\frac{7 \times 3 + 1}{3} = \frac{21 + 1}{3} = \frac{22}{3} \rightarrow \left[\frac{\text{Wh. No.} \times D + N}{\text{Denominator}} \right]$

$\left[\frac{\text{Whole No.} \times \text{denominator} + \text{Numerator}}{\text{Denominator}} \right] \rightarrow$ Short cut method

[Note: Rest of the parts do your self]

Q=4 Make groups of proper, Improper and Mixed fraction

On book

Solution Proper fraction = $\frac{3}{7}, \frac{16}{25}, \frac{3}{4}, \frac{5}{9}, \frac{3}{8}$

Improper fraction = $\frac{10}{9}, \frac{4}{3}, \frac{17}{9}, \frac{13}{5}, \frac{12}{5}, \frac{23}{9}, \frac{17}{5}$

Mixed fraction = $2\frac{2}{5}, 1\frac{3}{4}, 7\frac{1}{2}, 1\frac{1}{7}, 3\frac{1}{7}, 5\frac{5}{8}$

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Exercise 7.3

Q=1 Write any three fractions equivalent to each of the following fractions:

(a) $\frac{5}{6} = \frac{5 \times 2}{6 \times 2}, \frac{5 \times 3}{6 \times 3}, \frac{5 \times 4}{6 \times 4} \Rightarrow \frac{5}{6} = \frac{10}{12} = \frac{15}{18} = \frac{20}{24}$

(c) $\frac{7}{13} = \frac{7 \times 2}{13 \times 2}, \frac{7 \times 3}{13 \times 3}, \frac{7 \times 4}{13 \times 4} \Rightarrow \frac{7}{13} = \frac{14}{26} = \frac{21}{39} = \frac{28}{52}$

Q=2 Do your self

Q=3 Write equivalent fraction of $\frac{3}{5}$ having

(c) Numerator 27

Solution $\frac{3}{5} = \frac{3 \times 9}{5 \times 9} = \frac{27}{45}$

(a) denominator 20

Solution $\frac{3}{5} = \frac{3 \times 4}{5 \times 4} = \frac{12}{20}$

Q=4 Do yourself

Q=5 Check whether the given fractions are equivalent:

(a) $\frac{7}{13}, \frac{5}{11}$

(c) $\frac{5}{9}, \frac{30}{54}$

Solution $\frac{5}{9} \rightarrow \frac{30}{54}$

$5 \times 54, 30 \times 9$

$270, 270$

Equivalent

$7 \times 11, 5 \times 13$

$77, 65$

not equivalent

Q=6 Which of the following fractions are in simplest form?

$\frac{6}{17}, \frac{2}{7}, \frac{9}{21}, \frac{15}{36}, \frac{8}{15}, \frac{6}{15}, \frac{5}{12}, \frac{9}{24}, \frac{4}{21}$

Solution $\frac{6}{17}, \frac{2}{7}, \frac{8}{15}, \frac{5}{12}$ and $\frac{4}{21}$ are in simplest form.

Q=7 Reduce the following fractions to their simplest form:

(a) $\frac{9}{24} = \frac{9 \div 3}{24 \div 3} = \frac{3}{8}$ (c) $\frac{30}{42} = \frac{30 \div 6}{42 \div 6} = \frac{5}{7}$ (d) $\frac{12}{25}$ [Already in simplest form]

[NOTE:- Rest of the parts do your self]

P.T.O

Q=8 Jaya had 54 toffees and Anila had 48 Toffees. Jaya used 36 toffees on her birthday and Anila used 32 Toffees on her birthday. What fraction of toffees did each of them use? Did they use equal fraction of their toffees?

Solution Jayas fraction = $\frac{36}{54} = \frac{36 \div 18}{54 \div 18} = \frac{2}{3}$

Anilas fraction = $\frac{32}{48} = \frac{32 \div 16}{48 \div 16} = \frac{2}{3}$

Clearly, They use equal fraction of their toffees.

Q=9 Do your self.

Exercise 7.4

Exercise 7.4

Q=1 Which of the following are pairs of like fractions?

(a) on book (b) on book (c) on book (d) on book (e) on book (f) on book

Solution (b), (e) and (f) are like fractions

Q=2 Write any five pairs of like fractions.

Solution Five pairs of like fractions can be $(\frac{1}{7}, \frac{2}{7})$, $(\frac{3}{2}, \frac{1}{2})$,

$(\frac{3}{4}, \frac{5}{4})$, $(\frac{3}{8}, \frac{1}{8})$, $(\frac{5}{9}, \frac{7}{9})$

Q=3 Do yourself

Q=4 Convert the following unlike fractions into equivalent like fractions.

(a) $\frac{3}{4}, \frac{4}{5}$

Sol. L.C.M of 4 & 5 = 20

$\frac{3}{4} = \frac{3 \times 5}{4 \times 5} = \frac{15}{20}$

$\frac{4}{5} = \frac{4 \times 4}{5 \times 4} = \frac{16}{20}$

$\therefore \frac{15}{20}$ & $\frac{16}{20}$ are like fractions

(g) $\frac{2}{5}, \frac{1}{3}, \frac{4}{7}$

(sol.) LCM of 5, 3 and 7 = 105

$\frac{2}{5} = \frac{2 \times 21}{5 \times 21} = \frac{42}{105}$

$\frac{1}{3} = \frac{1 \times 35}{3 \times 35} = \frac{35}{105}$

$\frac{4}{7} = \frac{4 \times 15}{7 \times 15} = \frac{60}{105}$

$\therefore \frac{42}{105}, \frac{35}{105}$ and $\frac{60}{105}$ are like fractions

Q=5 Do your self

Q=6 Write the following fractions in ascending order:

(a) $\frac{1}{9}, \frac{5}{9}, \frac{2}{9}$

(b) $\frac{1}{5}, \frac{7}{5}, \frac{3}{5}, \frac{11}{5}, \frac{4}{5}$

(c) $\frac{9}{20}, \frac{9}{12}, \frac{9}{15}, \frac{9}{30}, \frac{9}{10}$

Sol. $\frac{1}{9}, \frac{2}{9}, \frac{5}{9}$

Sol. $\frac{1}{5}, \frac{3}{5}, \frac{4}{5}, \frac{7}{5}, \frac{11}{5}$

(sol.) $\frac{9}{30}, \frac{9}{20}, \frac{9}{15}, \frac{9}{12}, \frac{9}{10}$

[NOTE: Rest of the parts do your self]

Q=7 Do your self

Q=8 Write the following fractions in descending order.

(a) $\frac{3}{4}, \frac{3}{8}, \frac{1}{2}, \frac{5}{6}$

Sol LCM of 4, 8, 2 & 6 = 24

$$\frac{3}{4} = \frac{3}{4} \times \frac{6}{6} = \frac{18}{24}$$

$$\frac{3}{8} = \frac{3}{8} \times \frac{3}{3} = \frac{9}{24}$$

$$\frac{1}{2} = \frac{1}{2} \times \frac{12}{12} = \frac{12}{24}$$

$$\frac{5}{6} = \frac{5}{6} \times \frac{4}{4} = \frac{20}{24}$$

$$\frac{20}{24} > \frac{18}{24} > \frac{12}{24} > \frac{9}{24}$$

$$\therefore \frac{5}{6} > \frac{3}{4} > \frac{1}{2} > \frac{3}{8}$$

(c) $\frac{1}{4}, \frac{5}{12}, \frac{7}{18}, \frac{5}{6}$

Sol LCM of 4, 12, 18 and 6 = 36

$$\frac{1}{4} = \frac{1}{4} \times \frac{9}{9} = \frac{9}{36}$$

$$\frac{5}{12} = \frac{5}{12} \times \frac{3}{3} = \frac{15}{36}$$

$$\frac{7}{18} = \frac{7}{18} \times \frac{2}{2} = \frac{14}{36}$$

$$\frac{5}{6} = \frac{5}{6} \times \frac{6}{6} = \frac{30}{36}$$

$$\therefore \frac{30}{36} > \frac{15}{36} > \frac{14}{36} > \frac{9}{36}$$

$$\therefore \frac{5}{6} > \frac{5}{12} > \frac{7}{18} > \frac{1}{4}$$

Q=9 Do your self

Q=10 Do your self

Q=11 Illa reads 25 pages of book containing 100 pages. Lalita read

$\frac{2}{5}$ of the same book. who read less?

Solution

Illal read = 25 pages, Lalita read = $\frac{2}{5} \times 100 = 40$ pages

$\therefore$ Illa read less

Q=12 Rafiq Exercises for $\frac{3}{5}$ of an hour, while Rohit exercises for $\frac{3}{4}$ of an hour. who exercises for a longer duration?

Solution

$$\frac{3}{4} = \frac{3 \times 5}{4 \times 5} = \frac{15}{20}, \quad \frac{3}{5} = \frac{3 \times 4}{5 \times 4} = \frac{12}{20} \quad \therefore \frac{15}{20} > \frac{12}{20}$$

$\therefore \frac{3}{4} > \frac{3}{5} \therefore$ Rohit Exercises for a longer duration.

Q=13 Do your self

Q=14 Do your self

Exercise 7.5

(c) $\frac{5}{18} + \frac{2}{18}$

Q=15 Simplify (a) $\frac{1}{8} + \frac{3}{8}$

$$\text{Sol (a)} \quad \frac{1}{8} + \frac{3}{8} = \frac{1+3}{8} = \frac{4}{8} = \frac{1}{2}$$

$$\text{(Sol) (c)} \quad \frac{5+2}{18} = \frac{7}{18}$$

Q=16 Evaluate (a) $\frac{2}{3} + \frac{1}{7}$

$$\text{Sol (a)} \quad \frac{(2 \times 7) + (1 \times 3)}{21} = \frac{14+3}{21} = \frac{17}{21}$$

(b) $\frac{2}{5} - \frac{1}{6}$

$$\text{(Sol b)} \quad \frac{(2 \times 6) - (1 \times 5)}{30} = \frac{12-5}{30} = \frac{7}{30}$$

Q=17 Do your self

(Q=18) Do your self

(Q=19) Do your self

Q=20 Do your self

[NOTE :- Rest of the parts do your self]

P.T.O

Q27 Simplify (a) $4\frac{2}{3} + 3\frac{2}{3} - 4\frac{1}{6}$

(Sol) (a) $= \frac{14}{3} + \frac{11}{3} - \frac{25}{6} = \frac{28+22-25}{6} = \frac{50-25}{6} = \frac{25}{6} = 4\frac{1}{6} \left[\begin{array}{l} Q \\ R \\ D \end{array} \right]$

Q28 Do your self Q29 Do your self

Q30 What should be subtracted from 10 to get $4\frac{1}{4}$?

Solution The required number

$= 10 - 4\frac{1}{4} = 10 - \frac{17}{4} = \frac{40-17}{4} = \frac{23}{4} = 5\frac{3}{4} \left[\begin{array}{l} Q \\ R \\ D \end{array} \right] \left[\begin{array}{l} \text{Quotient} \\ \text{remainder} \\ \text{divisor} \end{array} \right]$

Exercise 7.6

Q31 Rao ate $2\frac{1}{2}$ apples and Rina ate $1\frac{1}{4}$ apples, who ate more and by how much more?

Solution Apples Rao ate $= 2\frac{1}{2} = \frac{5}{2}$ apples, Apples Rina ate $= 1\frac{1}{4} = \frac{5}{4}$ apples
Clearly Rao ate more apples

$\frac{5}{2} - \frac{5}{4} = \frac{10-5}{4} = \frac{5}{4} = 1\frac{1}{4}$, Rao ate $1\frac{1}{4}$ apples more than Rina.

Q32 Do your self

Q33 There are two packets. One weighs $1\frac{4}{5}$ kg and the other weighs $1\frac{1}{2}$ kg. Find the total weight of the two packets.

Solution Total weight $(1\frac{4}{5} + 1\frac{1}{2})$ kg $= \frac{9}{5}$ kg $+ \frac{3}{2}$ kg $= \frac{18+15}{10}$ kg $= \frac{33}{10}$ kg
 $\therefore \frac{33}{10}$ kg $= 3\frac{3}{10}$ kg $\left[\begin{array}{l} Q \\ R \\ D \end{array} \right]$ $\therefore$ Total weight of two packets is $3\frac{3}{10}$ kg

Q34 Do your self

Q35 Do your self

Q36 Vikas has $4\frac{1}{2}$ rupees. He gives $3\frac{3}{10}$ rupees to his sister. How much money does he have now?

Solution Rupees Vikas have $= \text{Rs } 4\frac{1}{2} = \text{Rs } \frac{9}{2}$, Money he gave to sister $= \text{Rs } 3\frac{3}{10} = \frac{33}{10}$

Money left with Vikas $= \text{Rs } \left[\frac{9}{2} - \frac{33}{10} \right] = \text{Rs } \left[\frac{45-33}{10} \right] = \text{Rs } \frac{12}{10} = \text{Rs } \frac{6}{5} = \text{Rs } 1\frac{1}{5}$

Vikas was left with $\left[\text{Rs } 1\frac{1}{5} \right] \left[\begin{array}{l} Q \\ R \\ D \end{array} \right] \left[\begin{array}{l} \text{Quotient} \\ \text{remainder} \\ \text{divisor} \end{array} \right]$

Q37 Do your self

Q38 Do your self

Q39 Do your self

Q40 A vessel had $4\frac{3}{4}$ l of milk. Suman drank $\frac{3}{5}$ l. How much milk is left in the vessel?

Solution Milk in the vessel $= 4\frac{3}{4}$ l $= \frac{19}{4}$ l, Milk Suman drank $= \frac{3}{5}$ l

Milk left $= \frac{19}{4} - \frac{3}{5} = \frac{95-12}{20} = \frac{83}{20}$ l $= 4\frac{3}{20}$ l $\left[\begin{array}{l} \text{Quotient} \\ \text{remainder} \\ \text{divisor} \end{array} \right]$

[Sharpen your understanding On Book page no. 143]

[NOTE:- Rest of the parts do your self]

CHAPTER :- DATA HANDLING 9Class :- 6thMATH BTerm :- 2ndExercise 9.1

Q1 Prepare a frequency distribution Table for the following data :

(a) 20, 5, 6, 8, 10, 11, 5, 11, 6, 20, 18, 5, 6, 10, 8, 8, 11, 5, 6, 11, 10, 10, 11

(c) 2, 0, 1, 4, 3, 2, 1, 2, 2, 3, 3, 4, 4, 0, 2, 5, 1, 4, 3, 2, 1, 4, 4, 1, 2, 3, 1

Solution
(a)

observation	Tally Marks	frequency
5		4
6		4
8		3
10		4
11		5
18		1
20		2

Solution
(c)

observation	Tally Marks	frequency
0		2
1		7
2		7
3		5
4		6
5		1

Q2 The marks in a Science Test is as follows:

70, 80, 90, 80, 80, 60, 80, 70, 90, 65, 100, 60, 70, 60, 70, 85, 65, 70, 70, 85, 90, 60, 65, 80, 60

Make a frequency distribution Table for the above data.

Solution

Marks	Tally Marks	frequency
60		5
65		3
70		6
80		5
85		2
90		3
100		1

(a) What are the maximum marks obtained?

(sol.) 100 marks

(b) How many students scored less than 75 marks?

(sol.) 14 students

(c) How many students scored 80 marks or above?

(sol.) 11 students

(d) How many students appeared in the Test?

(sol.) 25 students

Q3 Do your self.

Exercise 9.2

Q1 Following pictograph shows the number of books in five rows of a cupboard. Pictograph on book. Observe the pictograph and answer the following questions.

(a) which row has the greatest number of books? [Row 4]

(b) which row has the least number of books? [Row 3]

(c) Is there any row which has no book? [No]

Q2 Following is the pictograph of the number of wrist watches manufactured by a factory in a particular week. Pictograph on book. Observe the pictograph and answer the following questions.

P.T.O

(a) On which day were the least number of wrist watches manufactured?

Solution Friday and Saturday

(b) On which day were the maximum number of wrist watches manufactured?

Solution Thursday

(c) Find out the number of wrist watches manufactured in this particular week?

Solution

Monday = $50 \times 6 = 300 = 300$
Tuesday = $50 \times 7 + 25 = 350 + 25 = 375$
Wednesday = $50 \times 6 + 25 = 300 + 25 = 325$
Thursday = $50 \times 8 = 400 = 400$
Friday = $50 \times 5 + 25 = 250 + 25 = 275$
Saturday = $50 \times 5 + 25 = 250 + 25 = 275$
1950 wrist watches

Q-3 The following are the number of electric bulbs purchased during the first six months of a year.

Month	Jan	Feb	March	April	May	June
No. of bulbs	20	25	30	35	40	30

Represent the data by a pictograph [use 1 bulb icon = 5 bulbs]

Solution

1 bulb icon = 5 bulbs

January	4 bulb icons
February	5 bulb icons
March	6 bulb icons
April	7 bulb icons
May	8 bulb icons
June	6 bulb icons

Q-4 Total number of students in a school in different years is shown below in the table. Represent the data by pictograph, using an appropriate scale.

Solution

1 stick figure = 50 students

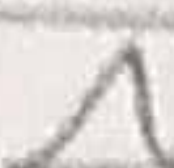
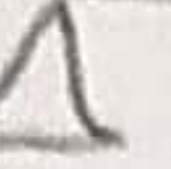
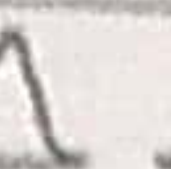
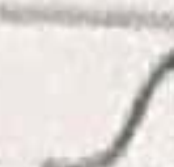
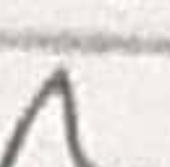
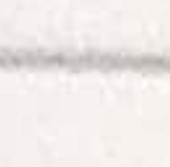
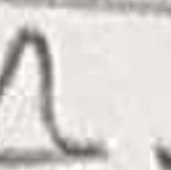
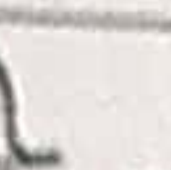
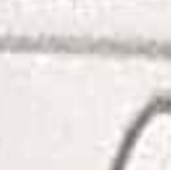
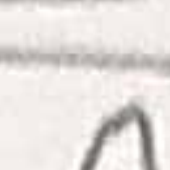
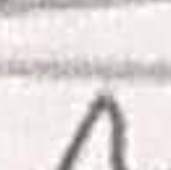
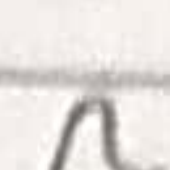
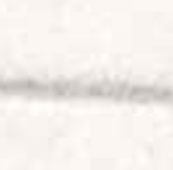
1996	8 stick figures
1998	10 stick figures
2000	9 stick figures
2002	10 stick figures
2004	7 stick figures

(DATA ON BOOK)

Q=5 The number of houses constructed by The Housing Board of a city during the past five years is as following: DATA on Book.

Solution

1  = 500 houses

2002	    
2003	     
2004	   
2005	     
2006	      
2007	       

$3125 \approx 3000$ $2210 \approx 2000$ $2780 \approx 3000$ $4100 \approx 4000$ (approx approximately)

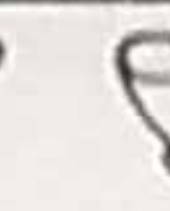
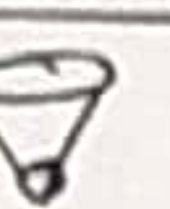
Q=6 The sale of soft drinks in a school canteen on the five days of a week was as follows. Represent this data by a pictograph.

Using  = 10 soft drinks. Data on Book.

Solution

$63 \approx 60$ $47 \approx 50$ $51 \approx 50$ $76 \approx 80$

1  = 10 soft drinks

Monday	       
Tuesday	     
wednesday	    
Thursday	    
Friday	       

~ o ~ o ~

Exercise 9.3

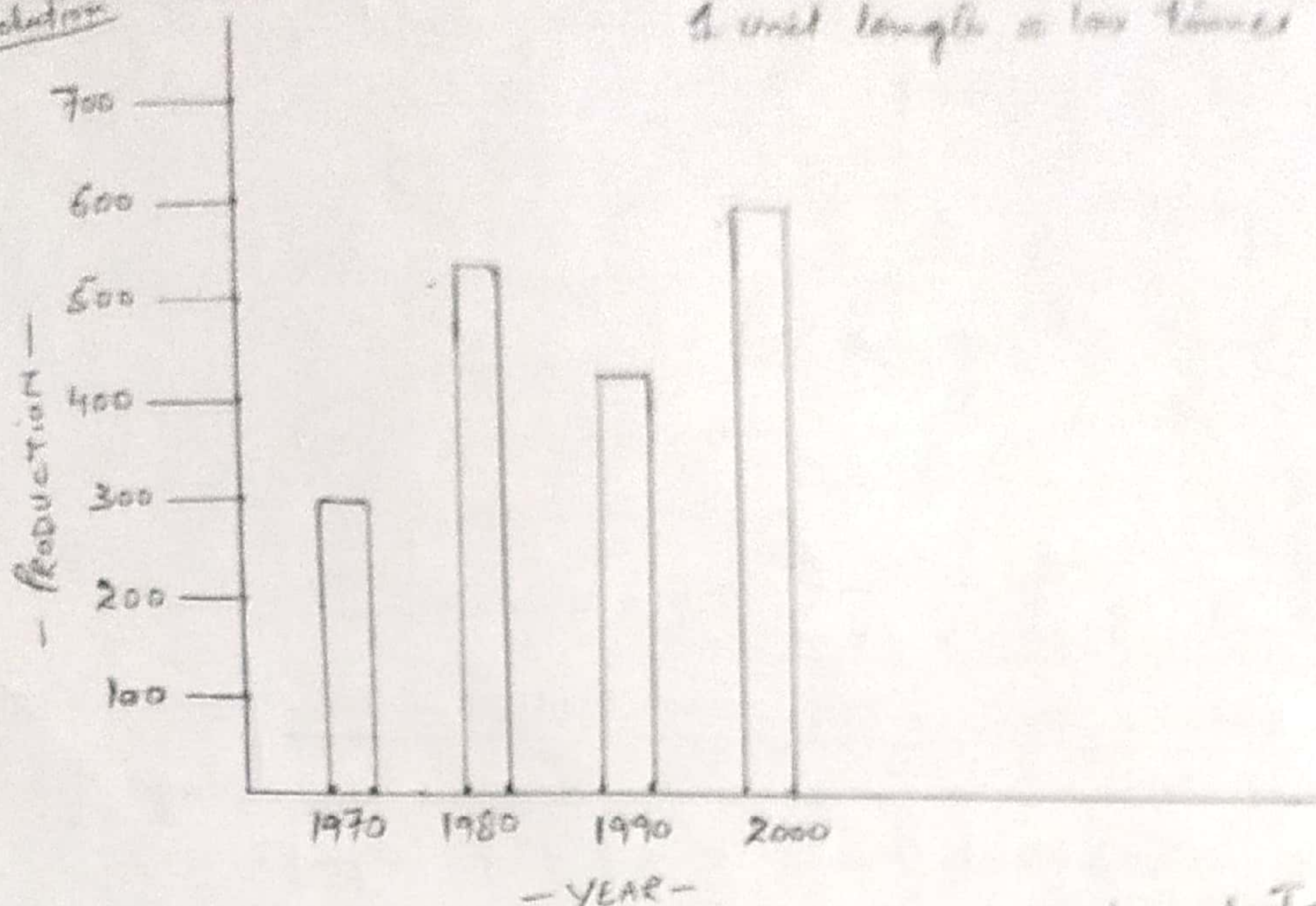
Q=1 Represent the following data by a bar graph, considering 1 unit length = 100 Tonnes.

Year -	1970	1980	1990	2000
Production	300	550	450	625

[NOTE :- Rest of the parts do your self]

Solution

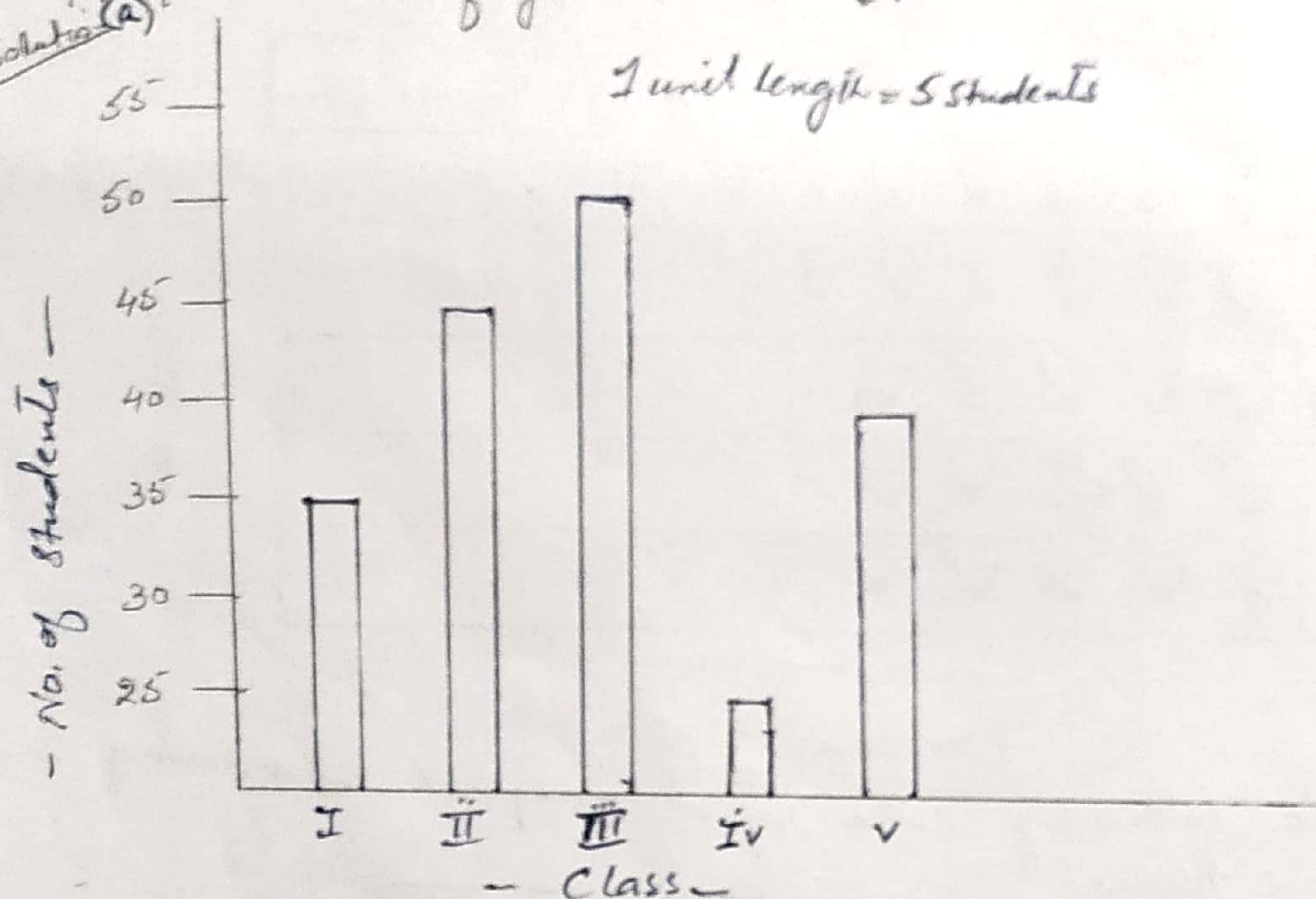
1 unit length = 100 tonnes



Q-2 Draw a bar graph to represent the following data. choose an appropriate scale of your choice. (a) Data on work.

Solution (a)

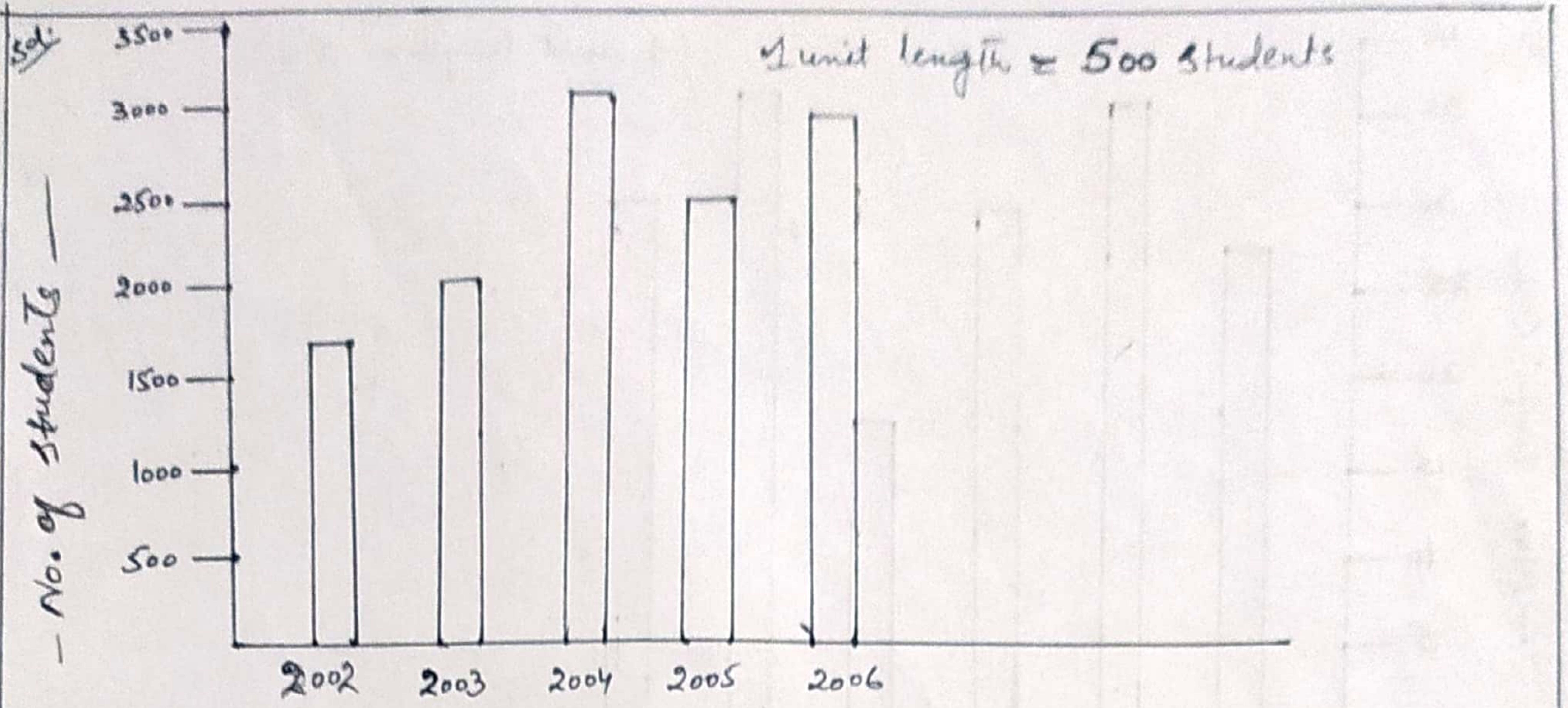
1 unit length = 5 students



Q-3 The strength of a school in 5 consecutive years is given below. Draw a bar graph to represent the data. choose an appropriate scale of your choice.

Year	2002	2003	2004	2005	2006
Strength	1750	2250	3250	2750	3000

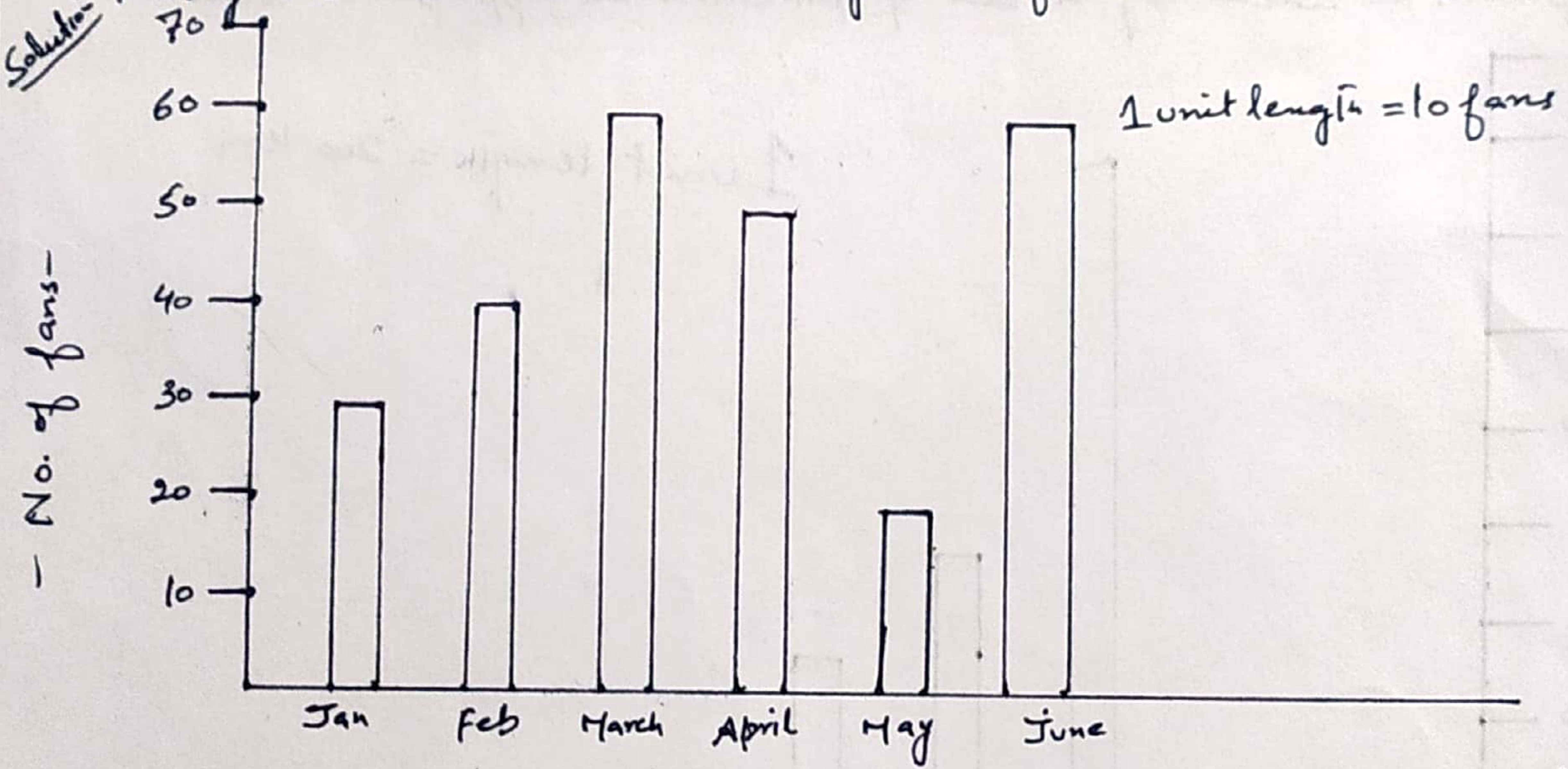
- (a) In which year was the strength maximum? $\rightarrow$ 2004
 (b) In which year was the strength minimum? $\rightarrow$ 2002
 (c) Did the strength increase every year? $\rightarrow$ No



Q=4 The number of fans sold by a shopkeeper during first six months of a year are given below

Month	Jan	Feb	March	April	May	June
No. of fans sold	30	40	60	50	20	60

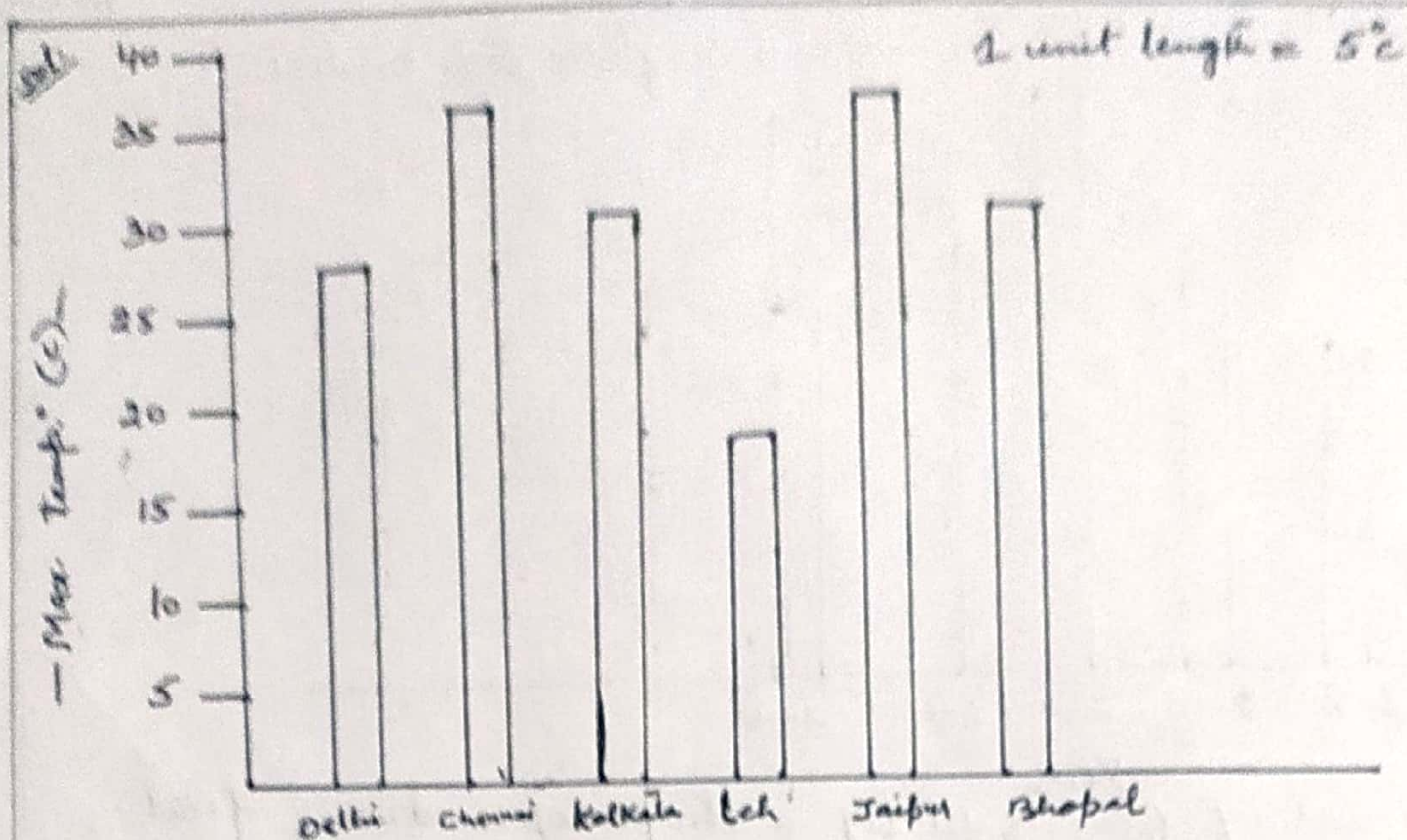
Solution: Taking the scale 1 unit length = 10 fans, draw a bar graph



Q25 The maximum temperature in six cities of India for a particular day in May are given below.

city	Delhi	Chennai	Kolkata	Leh	Taipur	Bhopal
Max. temp.	28	36	30	18	36	30

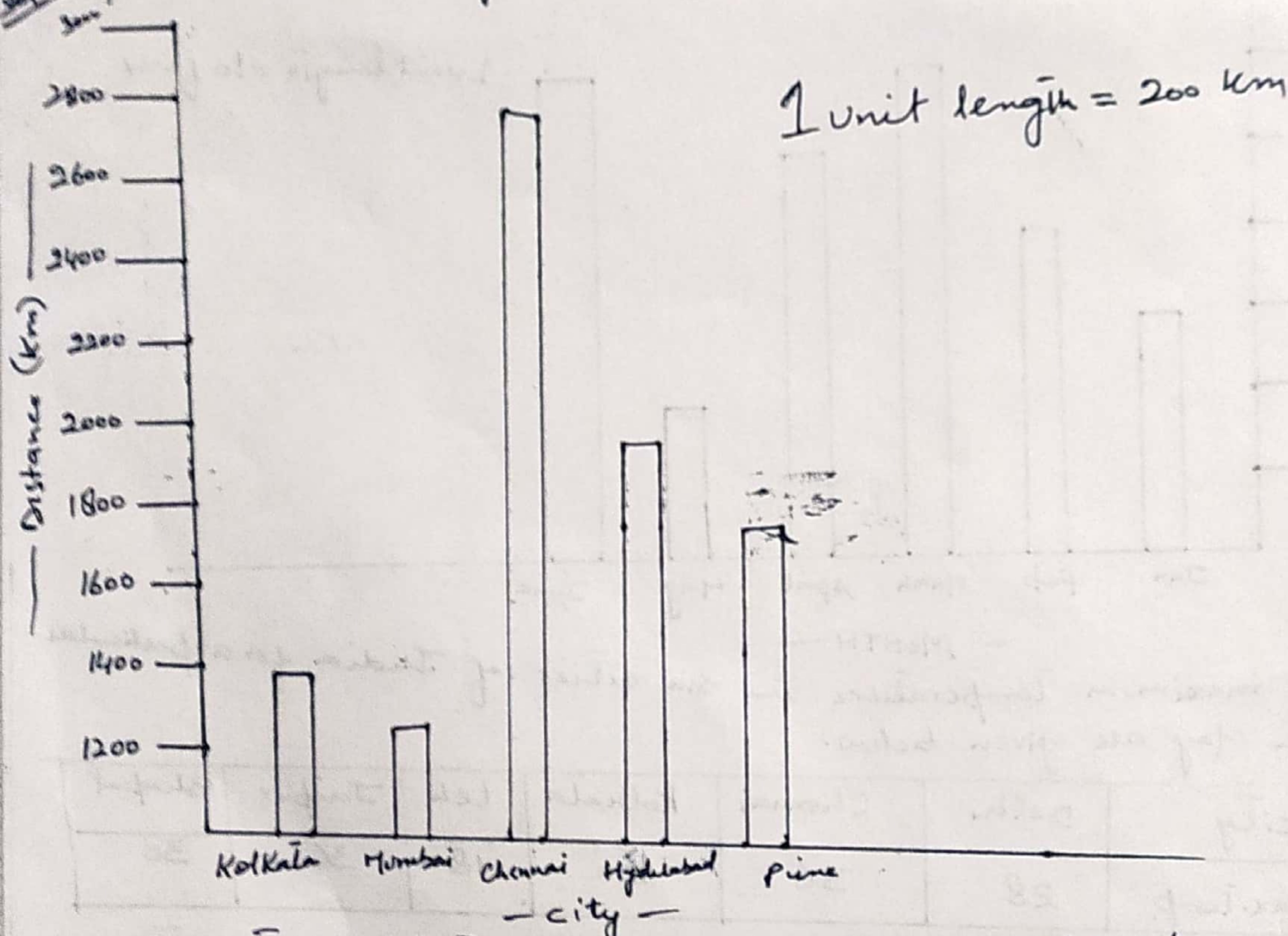
Represent the data by a bar graph. Choose an appropriate scale of your choice:



Q6 The approximate air distance from New Delhi to some major cities in India are given below.

city	Kolkata	Mumbai	Chennai	Hyderabad	Pune
Distance in km	1400	1350	2800	2000	1600

sol Represent the data by a bar graph. Choose an appropriate scale



(a) which city is farthest from New Delhi? $\rightarrow$ Chennai

(b) which city is nearest to New Delhi? $\rightarrow$ Mumbai

[NOTE:- Sharpen your understanding on BOOK (Page No. 176)]