## Jawhar Navodaya Vidyalaya

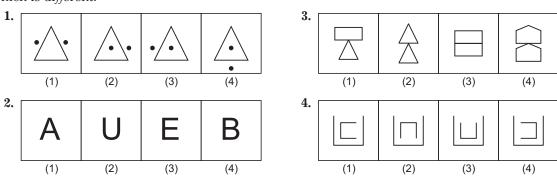
**Entrance Exam (Class VI)** 

# PRACTICE SET 1

## **Section I Mental Ability Test**

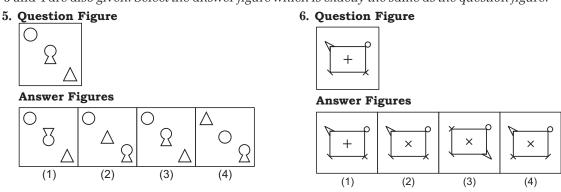
#### Part I

**Directions** (Q. Nos 1-4) In questions, four figures 1, 2, 3, and 4 have been given in each question of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different.



#### Part II

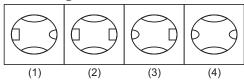
**Directions** (Q. Nos 5-8) In questions, a question figure is given and four answer figures marked 1, 2, 3 and 4 are also given. Select the answer figure which is exactly the same as the question figure.



#### 7. Question Figure



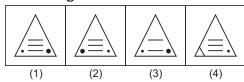
#### **Answer Figures**



#### 8. Question Figure



#### **Answer Figures**



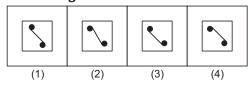
## **Part III**

**Directions** (Q. Nos 9-12) In questions, there is a question figure, a part of which is missing. Observe the answer figures 1, 2, 3 and 4 and find out the answer figure which without changing the direction, fits in the missing part of the question figure in order to complete the pattern in the question figure.

#### 9. Question Figure



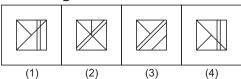
#### **Answer Figures**



#### 11. Question Figure



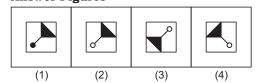
#### **Answer Figures**



#### 10. Question Figure

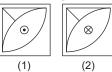


#### **Answer Figures**



#### 12. Question Figure



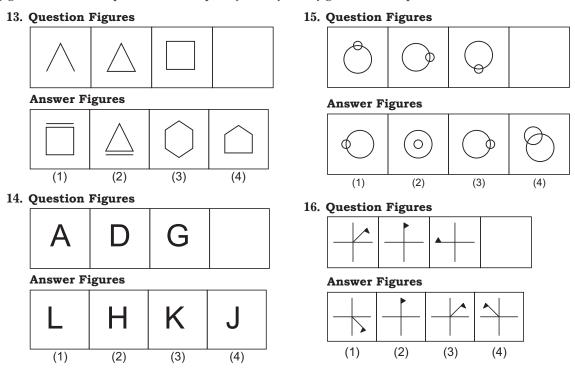






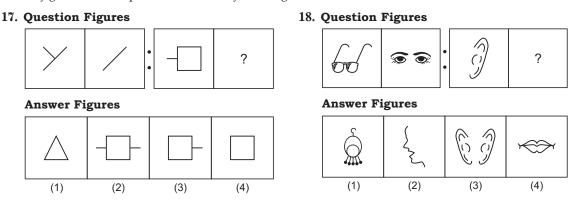
#### **Part IV**

**Directions** (Q. Nos 13-16) *In questions, there are three question figures and the space for the fourth figure is left blank. The question figures are in a series. Find out one figure among the answer figures, which occupies the blank space for the fourth figure and completes the series.* 

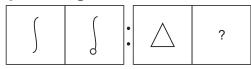


## Part V

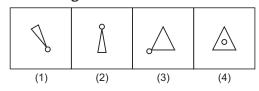
**Directions** (Q. Nos. 17-20) In questions, there are two sets of two question figures each. The second set has a mark of interrogation (?). There exists a relationship between the first two question figures. Similar relationship should exist between the third and fourth question figure. Select one of the answer figure which replaces the mark of interrogation.



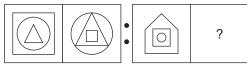
#### 19. Question Figures



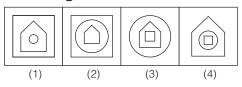
#### **Answer Figures**



#### 20. Question Figures



#### **Answer Figures**



## **Part VI**

**Directions** (Q. Nos. 21-24) *In questions, one part of a geometrical and figure is given as question* figure and the other one is among the four answer figures 1, 2, 3 and 4 are also given. Find out the figure that completes the geometrical figure.

#### 21. Question Figure



## **Answer Figures**



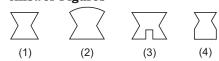




#### 23. Question Figure



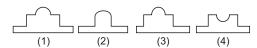
#### **Answer Figures**



#### 22. Question Figure

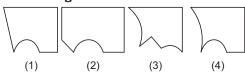


#### **Answer Figures**



#### 24. Question Figure





Practice Set 1

#### 7

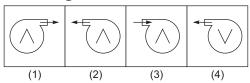
#### **Part VII**

**Directions** (Q. Nos. 25-28) *In questions, there is a question figure and four answer figures marked* 1, 2, 3 and 4 are also given. Select the answer figure which is exactly the mirror image of the question figure when the mirror is held at AB.

#### 25. Question Figure



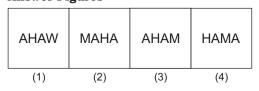
**Answer Figures** 



26. Question Figure



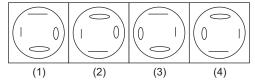
**Answer Figures** 



#### 27. Question Figure



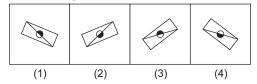
#### **Answer Figures**



#### 28. Question Figure



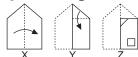
#### **Answer Figures**



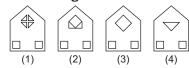
#### **Part VIII**

**Directions** (Q. Nos. 29-32) In questions, a piece of paper is folded and punched as shown in question figures and four answer figures marked 1, 2, 3 and 4 are also given. Select the answer figure which indicates how the paper will appear when opened (unfolded).

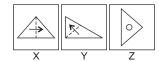
#### 29. Question Figures

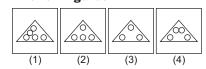


#### **Answer Figures**



#### 30. Question Figures

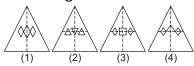




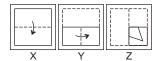
#### 31. Question Figures



#### **Answer Figures**



#### 32. Question Figures



#### **Answer Figures**



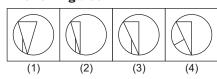
## **Part IX**

**Directions** (Q. Nos. 33-36) *In questions, a question figure is given and four answer figures, marked* 1, 2, 3 *and* 4 *are also given. Select the answer figure which can be formed from the cut-off pieces given in the question figure.* 

## 33. Question Figure



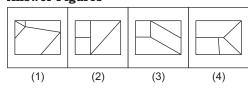
#### **Answer Figures**



#### 35. Question Figure



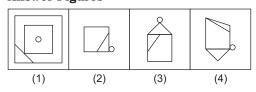
#### **Answer Figures**



#### 34. Question Figure

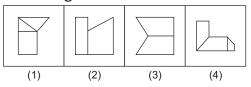


#### **Answer Figures**



#### 36. Question Figure





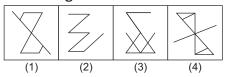
## Part X

**Directions** (Q. Nos. 37-40) *In questions, a question figure is given and four answer figures, marked* 1, 2, 3 and 4 are also given. Select the answer figure in which the question figure is hidden/embedded.

#### 37. Question Figure



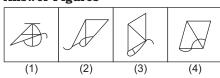
**Answer Figures** 



#### 38. Question Figure



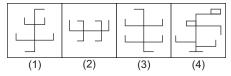
#### **Answer Figures**



#### 39. Question Figure



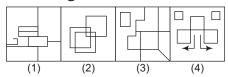
#### **Answer Figures**



#### 40. Question Figure



#### **Answer Figures**



## **SECTION II Arithmetic Test**

**Directions** (Q. Nos. 41-60) For every question four probable answers bearing numbers (1), (2), (3) and (4) are given. Only one out of these is correct. You have to choose the correct.

- 41. The difference of place value and face value of 4 in number 46890 is
  - (1) 4
  - (2) 40000
  - (3) 39996
  - (4) 39969
- 42. Out of a total of 250 marks, a student got 30% marks and failed by 25 marks. The marks necessary for passing is
  - (1) 50
  - (2) 75
  - (3) 100
  - (4) 125

43. The correct arrangement of the fractional numbers  $\frac{17}{25}$ ,  $\frac{17}{13}$ ,  $\frac{17}{19}$  and  $\frac{17}{27}$  in ascending

order is

- (1)  $\frac{17}{19}$ ,  $\frac{17}{13}$ ,  $\frac{17}{27}$ ,  $\frac{17}{25}$ (3)  $\frac{17}{27}$ ,  $\frac{17}{19}$ ,  $\frac{17}{13}$ ,  $\frac{17}{25}$

- **44.** The simplification of
  - $98 [65 + {32 (12 + 5)}]$  gives the result
  - (1) 8
- (2) 18
- (3) 178
- (4) 212

45.	A person buys 60 oranges at the rate of ₹21 per dozen and sells them at the rate of ₹24 per dozen. He makes a (1) profit of ₹3 (2) profit of ₹15 (3) loss of ₹5 (4) profit of ₹180  The difference between the smallest number of six-digits and the largest number of four-digits is (1) 90001 (2) 91000 (3) 90100 (4) 90010			A motorist drives at a speed of 80 km/h. He drives for 4 h and 6 min to reach his house. The distance covered by him to reach his house is  (1) 325 km (2) 328 km (3) 331 km (4) 334 km			
10				HCF of 128, 288 and 160 is (1) 16 (2) 24 (3) 32 (4) 48			
46.				If 1 cm = 10 mm, how (1) 100 cu mm (3) 10000 cu mm	(2) 1000 cu mm (4) 100000 cu mm		
47.	Which one of the following is the correct statement for the numbers 56 and 84?  (1) Both the numbers are prime (2) Both the numbers are co-prime (3) Both the numbers are multiple of 14			The decimal form of (1) 0.04 (3) 4.0 The area of square, v	(2) 0.40 (4) 40.00		
48.	(4) Both the numbers at The perimeter of a sq 200 m, its area will b	uare courtyard is		48 m is (1) 48 m <sup>2</sup> (3) 1152 m <sup>2</sup>	(2) 144 m <sup>2</sup> (4) 2304 m <sup>2</sup>		
49.	(1) 800 m (3) 800 sq m The HCF of two num LCM is 98154. If one 1558. The other num (1) 1197	of the number is	57.	The volumes of a cube and a cuboid are equal. If the dimensions of the cuboid are 18 cm, 12 cm and 8 cm the edge of the cube is  (1) 8 cm (2) 10 cm (3) 12 cm (4) 16 cm			
	(3) 4932	(4) 2384	58.	What will be the rate of simple interest, a which ₹ 17500 will become ₹19250 in 2 yr			
	A student went to sleep at 9:30 pm and got up at 4:15 am. For how much time did the student sleep?  (1) 5 h 45 min  (2) 6 h 15 min			(1) $12\frac{1}{2}\%$ (3) $7\frac{1}{2}$	(2) 10% (4) 5%		
	(3) 6 h 45 min (4) 7 h 45 min			When 10101 is multiplied by 17, the product is (1) 17017017 (2) 1717017			
51.	A train leaves New Delhi railway station at 10:50 am. It travels at a speed of 80 km/h. The train covers a distance of 120 km by  1) 11:50 am  2) 12:10 pm  3) 12:20 pm		60.	(3) 171717 (4) 170017 A cellphone was bought for ₹ 1500 and then it was sold for ₹ 1650. What is the per cent profit? (1) 10 (2) 15			
	(4) 12:50 pm			(3) 20	(4) 16		

## **SECTION III Language Test** (English)

**Directions** (Q.Nos. 61-80) There are Four passages. Each passage is followed by five questions. For each question four probable answers (1), (2), (3) and (4) are given. Only one out of these is correct. Choose the correct answer.

## Passage 1

Once upon a time there were six blind men. These blind men had never seen an elephant but they wanted to know what the elephant looked like. So they went near an elephant to find out.

The first blind man fell against the broad side of the elephant. He immediately said, "The elephant must be like a wall." The second blind man got hold of the elephant's tusk. He cried out, "I'm sure the elephant is like a spear." The third blind man happened to take the elephant's trunk in his hand.

He said confidently, "The elephant is surely like a snake". The fourth one stretched out his hand and felt the elephant's leg. "It's clear", he said, "The elephant is like a tree trunk". The fifth by chance touched the elephant ear. "I am confident elephant is like a fan". The sixth and the last of the blind man felt tail. "I tell you, he cried, "The elephant is like a rope."

And so these blind men argued and argued. Each one said he was right. But actually all were wrong.

- **61.** Six blind men went near an elephant to find out
  - (1) what the elephant looked like
  - (2) what was the size of the trunk of the elephant
  - (3) what was the colour of the elephant
  - (4) what the elephant's tail looked like
- **62.** To the first blind man the elephant looked like
  - (1) a pear
- (2) a tree trunk

(4) a fan

- (3) a wall
- **63.** The third blind man said, "The elephant is like a snake." He said so because he had touched the elephant's

- (1) leg
- (2) ear
- (3) tusk
- (4) trunk
- **64.** All the six blind men were wrong to say how the elephant looked like because
  - (1) each one of them had touched only one part of the elephant
  - (2) each one of them said without confidence
  - (3) they argued on their views again and again
  - (4) they had decided to oppose each other
- **65.** The fifth, by chance touched the elephant's ears. Here 'by chance' mean
  - (1) purposely
- (2) accidently
- (3) on being asked
- (4) matter of choice

## Passage 2

It is strange that ducks mostly swim in water, though their feathers keep dry. They swim in water for long hours and sometimes plunge into water but the feathers still keep dry. What is the secret of it? There is a small oil limb produced in the root of a duck's tail. The duck expels oil by pressing this limb which spreads over their feathers. Generally, all the birds have this oil producing limb but it is well developed in an aquatic animal, there is no sweat producing limb in birds.

- **66.** The above passage, describes about a duck's
  - (1) sweat limb
- (2) oily feathers
- (3) oil limbs
- (4) secret of remaining
- **67.** The peculiarity of ducks is that they
  - (1) can swim for long
  - (2) can swim very fast
  - (3) can plunge quickly
  - (4) can remain dry in spite of swimming in water
- 68. The word 'expels' mean
  - (1) throw out (2) force (3) admit (4) absorb

- **69.** "What is the secret of it?" Which action of a duck is represented by these words?
  - (1) Swimming
  - (2) Plunging
  - (3) Remaining dry
  - (4) Remaining in water for a long time
- 70. The oil limb is
  - (1) not developed in all birds
  - (2) not found in all ducks
  - (3) not found in all birds
  - (4) well developed in only some ducks

### Passage 3

A king had an orchard of fig trees. He loved the fruit so much that he determined to have the trees guarded. He appointed a blind man and a lame man as guards. The next day the king found that much of the fine fruit had gone and he asked the watchmen who had stolen it. "We do not know" they replied.

Though both the guards said they had not taken the fruits, the king soon discovered that the blind man had carried the lame man on his shoulder. While the blind man had used his legs, the lame man had used his eyes and hands, and in this way the figs had been stolen. Both the men were severely punished.

- 71. The king wanted to have the trees guarded because
  - (1) someone had been stealing the figs
  - (2) he felt sorry and wanted to find a job for the lame man and the blind man
  - (3) the fruit was valuable
  - (4) he was afraid some one would steal the fruit
- 72. Which one of the following is a synonym of the word 'lame' as used in the passage?
  - (1) weak
  - (2) convincing
  - (3) persuasive
  - (4) strong
- 73. The blind man and the lame man lied because

- (1) they had not been good watchmen
- (2) they thought the king would not discover the theft
- (3) they thought the king would never discover how they had stolen the fruit
- (4) they feared the king
- 74. The figs were stolen
  - (1) for their value (2) by thieves
  - (3) by the king's men
  - (4) by those who had to guard them
- **75.** The king discovered that
  - (1) the blind man had used his legs
  - (2) the lame man had used his eyes
  - (3) the two guards had stolen the fruit
  - (4) the guards told the truth

## Passage 4

The Sahara is the biggest desert in the world. It stretches across the whole of North Africa. The Arabian desert is also a very large desert. In India too, there is a desert called Thar desert in Rajasthan. Life in a desert is tough. The days are very hot and nights are cold.

- 76. The biggest desert in the wold is in
  - (1) India

- (2) Africa (3) Arabia (4) America
- 77. In desert regions
  - (1) there is no rainfall
- (2) it rains heavily
- (3) there is enough rain (4) there is a little rain
- 78. The climate in a desert is
  - (1) pleasant
- (2) difficult
- (3) comfortable
- (4) cold

- **79.** Date palms grow in
  - (1) plains
- (2) hilly regions
- (3) deserts
- (4) snowy regions
- 80. Very few trees grow in deserts because
  - (1) most trees need water to grow
  - (2) there is sand all-around
  - (3) nights are very cold
  - (4) there is no one to take care of trees

#### Answers

1	(1)	<b>2</b> (4)	<b>3</b> (1)	<b>4</b> (3)	<b>5</b> (3)	<b>6</b> (1)	<b>7</b> (1)	8 (2)	9 (1)	<b>10</b> (2)
11	(1)	<b>12</b> (4)	<b>13</b> (4)	<b>14</b> (4)	<b>15</b> (1)	<b>16</b> (1)	<b>17</b> (4)	<b>18</b> (1)	<b>19</b> (3)	<b>20</b> (2)
21	(1)	<b>22</b> (1)	<b>23</b> (2)	<b>24</b> (2)	<b>25</b> (2)	<b>26</b> (3)	<b>27</b> (3)	<b>28</b> (1)	<b>29</b> (3)	<b>30</b> (4)
31	(1)	<b>32</b> (2)	<b>33</b> (2)	<b>34</b> (3)	<b>35</b> (3)	<b>36</b> (1)	<b>37</b> (3)	<b>38</b> (4)	<b>39</b> (3)	<b>40</b> (2)
41	(3)	<b>42</b> (3)	<b>43</b> (2)	<b>44</b> (2)	<b>45</b> (2)	<b>46</b> (1)	<b>47</b> (3)	<b>48</b> (4)	<b>49</b> (2)	<b>50</b> (3)
51	(3)	<b>52</b> (2)	<b>53</b> (3)	<b>54</b> (3)	<b>55</b> (3)	<b>56</b> (2)	<b>57</b> (3)	<b>58</b> (4)	<b>59</b> (3)	<b>60</b> (1)
61	(1)	<b>62</b> (3)	<b>63</b> (4)	<b>64</b> (1)	<b>65</b> (2)	<b>66</b> (4)	<b>67</b> (4)	<b>68</b> (1)	<b>69</b> (3)	<b>70</b> (1)
71	(4)	<b>72</b> (1)	<b>73</b> (3)	<b>74</b> (4)	<b>75</b> (3)	<b>76</b> (1)	<b>77</b> (4)	<b>78</b> (4)	<b>79</b> (1)	<b>80</b> (1)

## **Hints and Solutions**

- 1. Except figure (1), there is certainly one point inside the triangle.
- **2.** Except figure (4), each figures contains vowels from English language.
- **3.** Except figure (1), each figures have same upper and lower design.
- **4.** Except figure (3), design inside the each figure faces towards the side of outer design.
- 5. Answer figure (3) is same as the question figure.
- **6.** Answer figure (1) is same as the given question figure.
- **7.** Answer figure (1) is same as the given question figure.
- **8.** Answer figure (2) is same as the given question figure.
- **9.** Answer figure (1) will complete the given pattern.



**10.** Answer figure (2) will complete the given pattern.



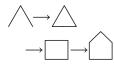
**11.** Answer figure (1) will complete the given pattern.



**12.** Answer figure (4) will complete the given pattern.



**13.** In every successive figure, one line is increasing. Hence, option (4) is the correct answer.



**14.** Each successive letter occurs after adding 3 position from the previous one. Hence, J comes after G.

 $A \xrightarrow{+3} D \xrightarrow{+3} G \xrightarrow{+3} J$ 

- **15.** Every successive figure is rotating clockwise with the angle of 90°. Hence, option (1) is the correct answer.
- **16.** Every successive figure is rotating anticlockwise with the successive angle of 45°. Hence, option (1) is the correct answer.
- 17. As, from question figure (1) to (2) side line removes likewise. In question figure (3) side line removes to produce the answer figure (4).
- **18.** As, spectacles worn on the eyes, in the same way ear rings worn in the ear. Hence, option (1) is the correct answer.
- **19.** As, from question figure (1) to (2), a small circle placed under the designing figure. Same ways question figure (3) changes to (4) to produce answer figure (3).
- **20.** As, from question figure (1) to (2), a outside figure is placed inside. Similarly, question figure (3) changes to (4) to produce answer figure (2).
- **21.** Answer figure (1) will complete the given geometrical figure.



**22.** Answer figure (1) will complete the given geometrical figure.



**23.** Answer figure (2) will complete the given geometrical figure.

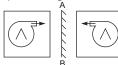


**24.** Answer figure (2) will complete the given geometrical figure.

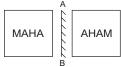


#### 14

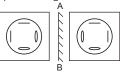
**25.** Answer figure (2) is the correct mirror image of the given question figure.



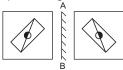
**26.** Answer figure (3) is the correct mirror image of the given question figure.



**27.** Answer figure (3) is the correct mirror image of the given question figure.



**28.** Answer figure (1) is the correct mirror image of the given question figure.



**29.** When the paper is unfolded, it is shown as in the answer figure (3).



**30.** When the paper is unfolded, it is shown as in the answer figure (4)



**31.** When the paper is unfolded, it is shown as in the answer figure (1).



**32.** When the paper is unfolded, it is shown as in the answer figure (2).



#### Navodaya Vidyalaya (Class VI) Entrance Exam

**33.** Answer figure (2) can be formed by using the cut pieces.



**34.** Answer figure (3) can be formed by using the cut pieces.



**35.** Answer figure (3) can be formed by using the cut pieces.



**36.** Answer figure (1) can be formed by using the cut pieces.



**37.** The question figure is embedded in the answer figure (3).



**38.** The question figure is embedded in the answer figure (4).



**39.** The question figure is embedded in the answer figure (3).



**40.** The question figure is embedded in the answer figure (2).



41. : The place value of 4 in number 46890

= 40000

Face value of 4 = 4

- $\therefore$  Difference = 40000 4 = 39996
- **42.** ∴ Total marks = 250 Student got = 30% i.e.  $250 \times \frac{30}{100} = 75 \,\text{marks}$

Failed by  $= 25 \, \text{marks}$ 

- :. Pass marks = 75 + 25 = 100 marks
- **43.**  $\frac{17}{27}$ ,  $\frac{17}{25}$ ,  $\frac{17}{19}$ ,  $\frac{17}{13}$  are in ascending order

(In like fractions with equal numerators, the fraction with greatest denominators is the smallest.)

- **44.** 98 [65 + {32 (12 + 5)}]  $= 98 - [65 + {32 - 17}] = 98 - [65 + 15]$ = 98 - 80 = 18
- **45.** CP of 1 dozen oranges = ₹21

CP of 60 oranges or 5 dozen oranges =  $21 \times 5$ =₹105 (1 dozen = 12)

SP of 1 dozen oranges = ₹24

SP of 5 dozen oranges =  $24 \times 5 = 7120$ 

**46.** Smallest number of 6 digits = 100000

Largest number of 4-digits = 9999

Then, the required difference

$$=100000 - 9999 = 90001$$

**47.**  $56 = 14 \times 4$  and  $84 = 14 \times 6$ 

It is clear from the above factors both numbers are multiple of 14.

- **48.** The side of square =  $\frac{\text{Perimeter}}{4}$ 
  - ∴ The side of the given square =  $\frac{200}{4}$  = 50 m
  - $\therefore$  Area = Side  $\times$  Side = 50  $\times$  50 = 2500 sq m
- 49. Other number

$$= \frac{\text{HCF} \times \text{LCM}}{\text{First number}} = \frac{38 \times 98154}{1558} = 2394$$

**50.** The student went to sleep at = 9:30 pm

The student got up at = 4:15 am

Time from 9: 30 to 12:00 (midnight)

Time from 12:00 to 4:15 = 4 h 15 min

Total time = 6 h 45 min

- ...The student slept for = 6 h 45 min
- **51.** : Time =  $\frac{\text{Distance}}{\text{Speed}} = \frac{120}{80} = \frac{3}{2} \text{ h} = 1 \text{ h} 30 \text{ min}$

The train will cover the distance by

**52.** : Speed = 80 km/h

Time = 4 h 6 min

$$=4 h \frac{6}{60} h = 4 \frac{1}{10} h = \frac{41}{10} h$$

- $\therefore$  Distance = Speed × Time
- $\therefore \text{ Distance} = 80 \times \frac{41}{10} = 328 \text{ km}$

$$288 = 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 3$$

 $160 = 2 \times 2 \times 2 \times 2 \times 2 \times 5$ 

So, the required HCF = Common factor  $=2\times2\times2\times2\times2=32$ 

**54.** 1 cm = 10 mm

1 cu cm =  $10 \times 10 \times 10$  cu mm

 $10 \text{ cu cm} = 10 \times 10 \times 10 \times 10$ = 10000 cu mm

**55.** 
$$\frac{185 \times 25 \times 16}{37 \times 500} = 4.0$$

37 × 500  
56. : Side of the square
$$= \frac{\text{Perimeter}}{4} = \frac{48}{4} = 12 \text{ m}$$

$$\therefore \text{ Area of the square}$$

.. Area of the square

$$= Side \times Side$$
$$= 12 \times 12 = 144 \text{ m}^2$$

**57.** Volume of cuboid =  $I \times b \times h$ 

$$= 18 \times 12 \times 8$$
 cu cm

Volume of cube = Volume of cuboid

$$=18\times12\times8$$

:. Edge of cube

$$= \sqrt[3]{18 \times 12 \times 8} = 12 \text{ cm}$$

**58.** : Simple interest =  $\frac{\text{Principle} \times \text{Rate} \times \text{Time}}{100}$ 

$$Amount - Principal = \frac{17500 \times Rate \times 2}{100}$$

19250 − 17500 = 350 × Rate  
∴ Rate = 
$$\frac{1750}{350}$$
 = 5%

∴ Rate = 
$$\frac{1750}{350}$$
 = 5%

- **59.**  $10101 \times 17 = 171717$
- 60. The profit on cell phone

$$= SP - CP$$

= 1650 - 1500 =₹ 150

Then, required per cent profit =  $\frac{\text{Profit} \times 100}{\text{CP}}$ 

$$=\frac{150\times100}{1500}=10\%$$