Name : Unitary Method Problems

Chapter: Unitary Method

Grade: ICSE Grade VIII

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- 1. If 5 cookies cost ₹35, how much will 35 cookies cost?
  - (i) ₹229 (ii) ₹268 (iii) ₹245 (iv) ₹257 (v) ₹218
- 2. If 13 toys cost ₹78, how many toys can be purchased with ₹222?
  - (i) 36 (ii) 40 (iii) 38 (iv) 37 (v) 35
- 3. If 6 I of oil costs ₹90, how much will 40 I cost?
  - (i) ₹624 (ii) ₹600 (iii) ₹613 (iv) ₹575 (v) ₹598
- 4. If 9 I of butter milk costs ₹126, how much of butter milk costs ₹448?
  - (i) 27 l (ii) 32 l (iii) 37 l (iv) 29 l (v) 35 l
- 5. If 12 men can make 24 candles in a day, how many candles are made by 15 men in a day?
  - (i) 27 (ii) 31 (iii) 32 (iv) 30 (v) 29
- 6. If 12 men can make 60 baskets in a day, how many men are needed to make 90 baskets in a day?
  - (i) 19 (ii) 21 (iii) 18 (iv) 17 (v) 16
- 7. If Vikram can read 320 pages in 20 hr, how many pages can he read in 13 hr?
  - (i) 208 (ii) 205 (iii) 209 (iv) 211 (v) 207
- 8. If Bali can read 324 pages in 18 hr, he can read 234 pages in how many hours?
  - (i) 8 hr (ii) 16 hr (iii) 10 hr (iv) 18 hr (v) 13 hr
- 9. If Satish can read 108 pages in a 324 pages book in 4 hr, how much more time will it take to complete the book?
  - (i) 6 hr (ii) 7 hr (iii) 10 hr (iv) 8 hr (v) 9 hr
- 10. If Srikanth can make 176 pastries in 11 min, in how much time can he complete an order of 752 pastries?
  - (i) 50 min (ii) 47 min (iii) 42 min (iv) 44 min (v) 52 min
- 11. If 72 men can do a piece of work in 120 days, how many men can do the same work in 180 days?
  - (i) 49 (ii) 46 (iii) 47 (iv) 48 (v) 50
- 12. If 84 men can do a piece of work in 165 days, 90 men can do the same work in how many days?
  - (i) 170 days (ii) 141 days (iii) 154 days (iv) 139 days (v) 172 days
- 13. If 11 men can build  $\frac{1}{6}$  of a wall in 35 days,

in how much more time is the wall completely built?

(i) 192 days (ii) 190 days (iii) 158 days (iv) 175 days (v) 157 days

14.	A vehicle can cover certain distance in 63 min, running at a speed of 60 kmph. At what speed must the vehicle run to cover the same distance in 54 min? (i) 70 kmph (ii) 73 kmph (iii) 75 kmph (iv) 67 kmph (v) 65 kmph
15	A vehicle can cover certain distance in 90 min, running at a speed of 35 kmph. In how many minutes, the vehicle covers the same distance running at a speed of 105 kmph?
	(i) 35 min (ii) 30 min (iii) 25 min (iv) 27 min (v) 33 min
16.	A person has to travel from one town to another town which is at a distance of 560 km. He covers 392 km in 14 nr. In how much more time will he reach his destination?
	(i) 5 hr (ii) 7 hr (iii) 8 hr (iv) 4 hr (v) 6 hr
17.	The cost of 16 kg of brinjals is ₹480. How many kgs of brinjals can be purchased with ₹540 ?
	(i) 18 kg (ii) 21 kg (iii) 15 kg (iv) 13 kg (v) 23 kg
18.	The cost of 19 kg of carrots is ₹380. How much has to be paid to purchase 24 kg of carrots ?
	(i) ₹480 (ii) ₹464 (iii) ₹496 (iv) ₹485 (v) ₹463
19.	The weight of 24 rounds of copper wire is 552 kg. How many rounds of copper wire is present in 253 kg?
	(i) 14 (ii) 11 (iii) 10 (iv) 12 (v) 8
<i>7</i> ()	35 men can dig a canal in 24 days working for 11 hr per day. How many men are required to complete the worl
	n 55 days working for 6 hr per day? (i) 30 (ii) 29 (iii) 28 (iv) 25 (v) 27
	(1) 30 (11) 29 (111) 20 (1V) 23 (V) 21
71	16 men can dig a trench in 16 days. But after working for 8 days, 9 men left. How many more days are required to complete the work?
	(i) $18\frac{2}{9}$ days (ii) $18\frac{4}{7}$ days (iii) $18\frac{2}{7}$ days (iv) $18\frac{2}{5}$ days (v) $18$ days
,,	n a hostel mess there are provisions enough for 18 students for 17 days. If 9 more students join the hostel, how ong will the provisions last ?
	(i) 16.33 days (ii) 14.33 days (iii) 11.33 days (iv) 6.33 days (v) 8.33 days
ノイ	n a hostel mess, there are provisions enough for 20 students for 15 days. After 9 days, 13 students left. How many more days will the provisions last ?
	(i) 20.14 days (ii) 17.14 days (iii) 22.14 days (iv) 12.14 days (v) 14.14 days
24. /	A bus ticket fare for 12 km costs ₹91. How much is the fare for 18 km?
	(i) ₹150.50 (ii) ₹133.50 (iii) ₹111.50 (iv) ₹159.50 (v) ₹136.50
- 25.	Γhe cost of 18 pens is ₹360 and 10 pencils is ₹100. With an amount of ₹520, 20 pencils are purchased. How
ı	many pens can be purchased with the remaining amount ?
	(i) 16 (ii) 14 (iii) 17 (iv) 15 (v) 18

The cost of 19 pens is ₹228 and 11 pencils is ₹88. With an amount of ₹376, 18 pens are purchased. How many

pencils can be purchased with the remaining amount?

(i) 21 (ii) 19 (iii) 22 (iv) 17 (v) 20

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A group of pilgrims have to cover 16 km to reach a shrine. They walk 10 km in 15 hr. At what speed they have to
    walk to cover the remaining distance in 8 hr?
    (i) 1.75 kmph (ii) 8.75 kmph (iii) 7.75 kmph (iv) 2.75 kmph (v) 0.75 kmph
29. To stitch a shirt, 167 cm of cloth is needed. How much cloth is needed to stitch 8 shirts?
    (i) 1166 cm (ii) 1336 cm (iii) 1196 cm (iv) 1616 cm (v) 1476 cm
30. 10 m of cloth is required to stitch 9 dresses. How many meters of cloth is required to stitch 25 dresses?
    (i) 30.78 m (ii) 24.78 m (iii) 32.78 m (iv) 27.78 m (v) 22.78 m
31. The cost of 8 dozen bananas is ₹360. What is the cost of 26 dozens?
    (i) ₹1170 (ii) ₹1430 (iii) ₹1120 (iv) ₹940 (v) ₹1230
32. 17 mangoes weigh 9 kg. If 6 mangoes are needed, how many kgs have to be purchased?
    (i) 2.18 kg (ii) 3.18 kg (iii) 4.18 kg (iv) 5.18 kg (v) 1.18 kg
33. 40 men or 48 women can earn ₹2400 per day. How much is earned by 17 men and 12 women in a day?
    (i) ₹1400 (ii) ₹1440 (iii) ₹1790 (iv) ₹1860 (v) ₹1620
34. The total wage of 17 labourers for 10 days is ₹81600. What will be the total wage of 11 labourers for 18 days?
    (i) ₹94640 (ii) ₹92840 (iii) ₹96340 (iv) ₹96540 (v) ₹95040
35. 24 artisans can make 30 idols in 70 days. How many artisans are required to make 24 idols in 42 days?
    (i) 30 (ii) 32 (iii) 31 (iv) 33 (v) 34
    18 workers working for 4 hr per day can dig a pit in 30 days. How many days are needed for 27 workers working
    10 hr per day to dig the same pit?
    (i) 9 days (ii) 10 days (iii) 7 days (iv) 6 days (v) 8 days
37. 8 cows eat 528 kg of grass in 6 days. How much of grass has to be procured to feed 14 cows for 12 days?
    (i) 1728 kg (ii) 1898 kg (iii) 1708 kg (iv) 2078 kg (v) 1848 kg
    Cost of 9 toys of TypeA is ₹90 and 12 toys of TypeB is ₹132. Out of a sum of ₹342, 19 toys of TypeA are
    purchased. If 16 toys of TypeB have to be purchased, how much extra amount is needed?
    (i) ₹27 (ii) ₹24 (iii) ₹21 (iv) ₹19 (v) ₹29
    9 men can make 270 baskets in 5 days. 10 women can make 100 baskets in 5 days. How many baskets are
    made by 2 men and 5 women in 10 days?
    (i) 220 (ii) 219 (iii) 223 (iv) 218 (v) 221
    To irrigate 18 acres of a field, 70000 I of water is needed. If 7 more acres are brought under cultivation, how
    many Its of water is needed?
    (i) 97922.22 | (ii) 96622.22 | (iii) 97222.22 | (iv) 95722.22 | (v) 99922.22 |
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27. The sales tax for ₹100 of a bill is ₹19. How much sales tax has to be paid for a bill of ₹342?

(i) ₹61.98 (ii) ₹67.98 (iii) ₹64.98 (iv) ₹59.98 (v) ₹69.98

41.	8 labourers can cultivate a field in 90 days working 8 hr per day. How many more labourers are needed to cultivate double the field in 32 days working 9 hr per day ?  (i) 32 (ii) 33 (iii) 34 (iv) 31 (v) 30
42.	20 workers working 12 hr per day are paid ₹259200 for 18 days. How much has to be paid to 15 workers working 12 hr per day for 20 days ?  (i) ₹211000 (ii) ₹216000 (iii) ₹190000 (iv) ₹233000
43.	The air ticket charges for 37 persons for a flight is ₹198764, inclusive of ₹172 as airport tax per person. How much has to be paid if 20 persons drop out of the trip?  (i) ₹91024 (ii) ₹91724 (iii) ₹89524 (iv) ₹91324 (v) ₹92924

- The specification on a printer says that it prints 1050 pages in 15 min. If 6300 pages have to be printed, how long will it take?
  - (i) 85 min (ii) 93 min (iii) 90 min (iv) 87 min (v) 95 min
- 45. 16 gm of gold costs ₹32000. What is the cost of 29 gm?
  - (i) ₹59600 (ii) ₹57300 (iii) ₹56700 (iv) ₹59800 (v) ₹58000
- 46. A banker gave foreign exchange of \$19 for ₹1045. How many dollars will the customer get for ₹2145?
  - (i) \$44 (ii) \$42 (iii) \$39 (iv) \$34 (v) \$36
- 47. 14 workers take 17 days to build a room. After working for 6 days, 9 workers left. In how many more days is the room built?
  - (i) 35.80 days (ii) 25.80 days (iii) 30.80 days (iv) 27.80 days (v) 33.80 days

A can do  $\frac{1}{14}$  of a particular work in 12 days.

B can do  $\frac{1}{9}$  of the same work in 4 days.

C can do  $\frac{1}{5}$  of the same work in 3 days.

If A, B and C work together, in how many days is the work completed?

(i) 
$$9\frac{241}{253}$$
 days (ii)  $9\frac{15}{17}$  days (iii)  $10\frac{10}{251}$  days (iv)  $9\frac{245}{253}$  days (v)  $9\frac{243}{253}$  days

- A journey consists of three legs. First 78 km are travelled at a speed of 130 kmph. Next 96 km are travelled at a 49. speed of 80 kmph. Last 45 km are travelled at a speed of 150 kmph. Find the total time taken to complete the journey.
  - (i)  $1\frac{9}{10}$  hr (ii)  $1\frac{3}{4}$  hr (iii)  $2\frac{5}{8}$  hr (iv)  $2\frac{3}{10}$  hr (v)  $2\frac{1}{10}$  hr
- In an eating contest, the eating capacities of A, B and C are 10 gm/sec, 15 gm/sec and 5 gm/sec respectively. If 50. the amount of food to be eaten is 19.8 kg, in how much time is it consumed if all three participants start eating together?
  - (i) 12 min (ii) 14 min (iii) 11 min (iv) 10 min (v) 8 min

In a certain exam, for every correct answer, 7 marks are added. For every wrong answer 4 marks are subtracted.

- 51. A student attempted 40 questions and secured 137 marks. How many answers are correct and how many are wrong?
  - (i) 25 correct and 15 wrong (ii) 27 correct and 13 wrong (iii) 26 correct and 14 wrong
  - (iv) 29 correct and 11 wrong (v) 28 correct and 12 wrong

A production line consists of three stages to be completed serially.

Stage1 work can be done by 7 workers in 6 days.

- Stage2 work can be done by 10 workers in 15 days.
- Stage3 work can be done by 11 workers in 5 days.

If 14, 7 and 10 workers are hired to do Stage1, Stage2 and Stage3 works respectively,

in how many days is the work completed?

(i) 
$$29\frac{13}{14}$$
 days (ii)  $29\frac{11}{14}$  days (iii)  $30\frac{1}{12}$  days (iv)  $29\frac{13}{16}$  days (v)  $30\frac{1}{14}$  days

The slab rates of a city's water department are as follows

3.	Low Val (kl)	-	High Val (kl)	Rate Rs/kl
	0	-	30	15
	30	F	50	20
	50	F	70	25
	70	-	remaining	30

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How much amount has to be paid if the consumption is 30 kl.

(i) ₹450 (ii) ₹445 (iii) ₹456 (iv) ₹428 (v) ₹477

The slab rates of a city's water department are as follows

Low Val (kl)	-	High Val (kl)	Rate Rs/kl
0	-	20	16
20	F	40	21
40	F	80	26
80	F	remaining	31

How much amount has to be paid if the consumption is 24 kl.

(i) ₹400 (ii) ₹381 (iii) ₹422 (iv) ₹417 (v) ₹404

The slab rates of a city's water department are as follows

55.	Low Val (kl)	-	High Val (kl)	Rate Rs/kl
	0	-	20	14
	20	-	40	19
	40	-	60	24
	60	-	remaining	29

How much amount has to be paid if the consumption is 45 kl.

(i) ₹775 (ii) ₹783 (iii) ₹780 (iv) ₹756 (v) ₹803

The slab rates of a city's water department are as follows

	Low Val (kl)	-	High Val (kl)	Rate Rs/kl
	0	-	40	15
56.	40	-	60	20
	60	-	80	25
	80	-	remaining	30

How much amount has to be paid if the consumption is 94 kl .

(i) ₹1780 (ii) ₹1990 (iii) ₹1800 (iv) ₹2060 (v) ₹1920

		А	ssignment Key			
1) (iii)	2) (iv)	3) (ii)	4) (ii)	5) (iv)	6) (iii)	
7) (i)	8) (v)	9) (iv)	10) (ii)	11) (iv)	12) (iii)	
13) (iv)	14) (i)	15) (ii)	16) (v)	17) (i)	18) (i)	
19) (ii)	20) (iii)	21) (iii)	22) (iii)	23) (ii)	24) (v)	
25) (i)	26) (v)	27) (iii)	28) (v)	29) (ii)	30) (iv)	
31) (i)	32) (ii)	33) (v)	34) (v)	35) (ii)	36) (v)	
37) (v)	38) (ii)	39) (i)	40) (iii)	41) (i)	42) (ii)	
43) (iv)	44) (iii)	45) (v)	46) (iii)	47) (iii)	48) (v)	
49) (v)	50) (iii)	51) (ii)	52) (i)	53) (i)	54) (v)	
55) (iii)	56) (v)					

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