



The **PRIME** EXAMINATIONS 2023

P.7 PRE - PLE TRIAL SET I

MATHEMATICS

Time allowed 2 hours 30 minutes

INDEX NO:

Random No.						Personal No.		



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READ THE FOLLOWING INSTRUCTIONS CAREFULLY

1. Do not write your **school** or **district name** anywhere on this paper.
2. This paper has **two** sections: **A** and **B** Section **A** has 20 questions and section **B** has 12 questions. The paper has **9 printed pages**.
3. Answer **all** questions. **All** the working for both sections **A** and **B** must be shown in the spaces provided.
4. **All working must** be done using a **blue** or **black** ball point pen or ink. Any work done in pencil other than graphs and diagrams will **not** be marked.
5. **No calculators** are allowed in the examination room.
6. Unnecessary **changes** in your work and handwriting that cannot easily be read may lead to **loss of marks**.
7. Do not fill anything in the table indicated "For Examiners' use only", and those boxes inside the question paper.

FOR EXAMINERS' USE ONLY		
QUESTION NUMBER	MARKS ATTAINED	INITIALS
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
TOTAL		

PUBLISHERS OF:-

APPROVED:
Consultant:
Mathematics Department (PEC)

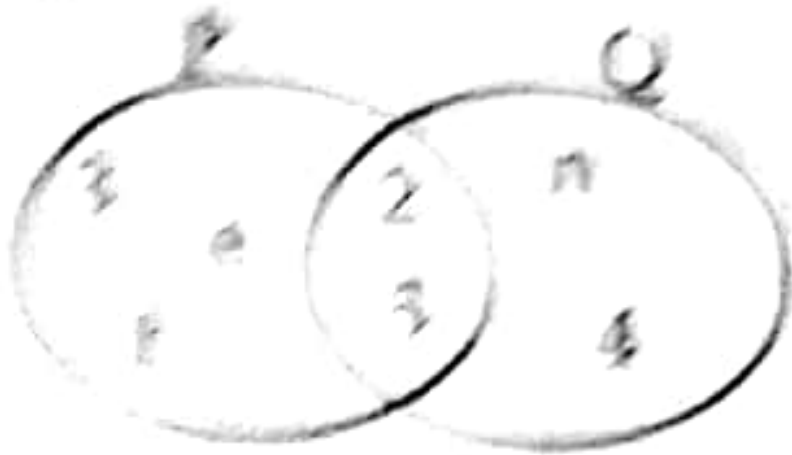
Section A (40 Marks)

Answer: $43 + 12$

2

Write in words: 19036

Find n in the Venn diagram below.



4

There are 29 pupils in a certain class. Draw tallies to represent this number.

Below is the morning time at which a bus starts its journey. Express the time in 24-hour clock system.



Use a ruler and a pair of compasses only, to draw a line parallel to line \overline{AB} below.

A



11/10/68: 4-9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843,



8 Simplify: $7y - (6 - y)$

9. Given that the number of people who
live in the US, and many others will
be concerned with the future.

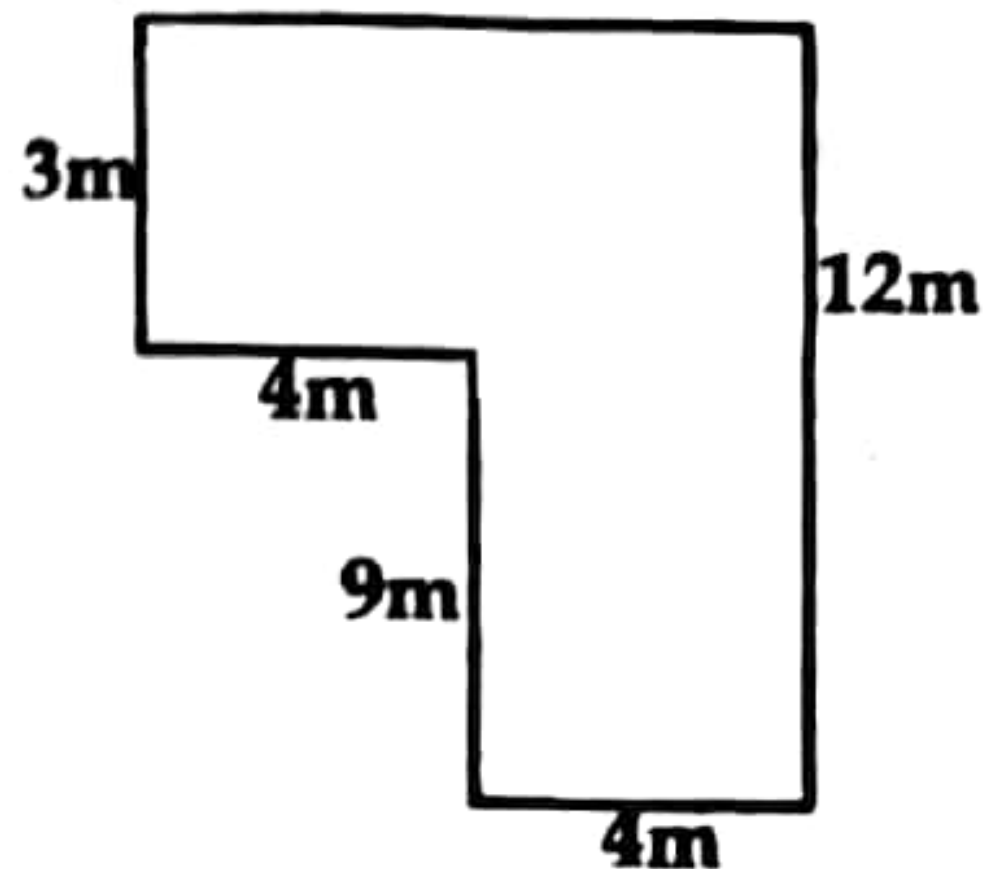
10 Find the next number in the sequence,
12, 13, 21, 40, _____

11 Work out: $(760 \div 12) - (200 \div 12)$

12 Anna is 1.752 metres tall. What is Anna's height to the nearest whole number?

13. Fred covered 24 km in 40 minutes.
Calculate his speed in km/hr.

14 Find the perimeter of the figure below.



15 Given the exchange rates below.

US\$ 1 = Ugsh.3600

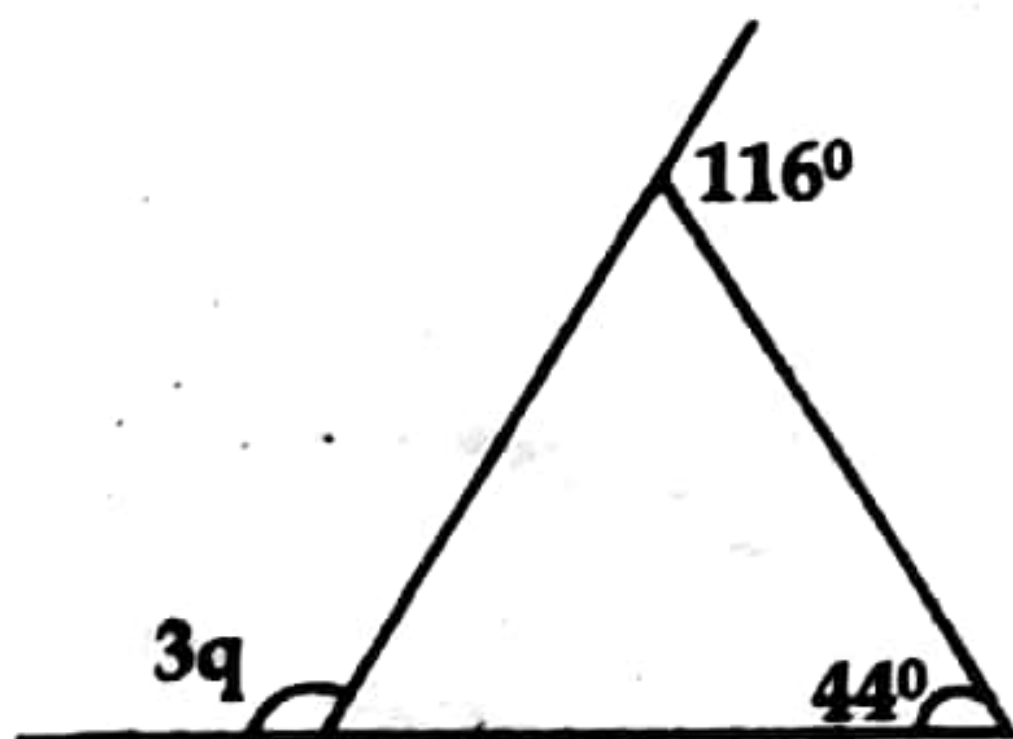
Ksh.1 = Ugsh.28

Convert 70US\$ to Kenya shillings.

16 Solve the inequality below

$$4 - k > 2.$$

17 In the diagram below, find the value of q .



18 Find the mean of $(a+7)$, 14 and $(2a+6)$

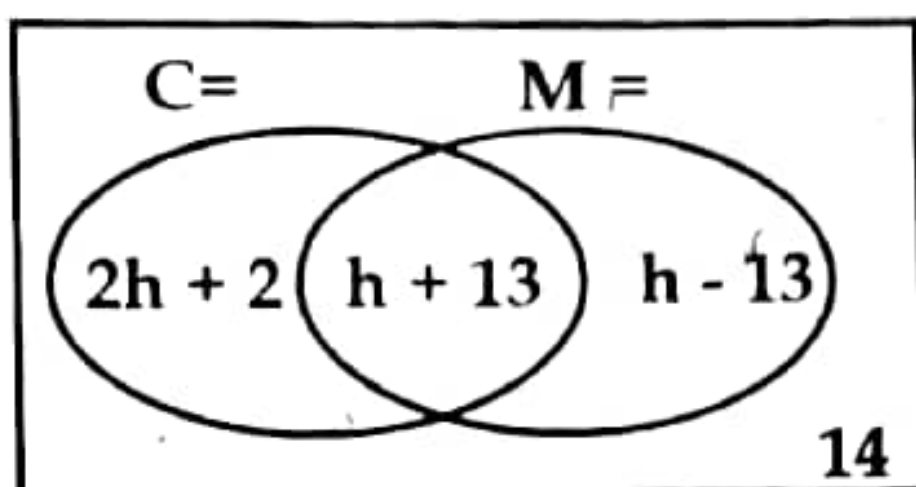
19 Increase sh.4200 by 16%

- 20 Cups of 500ml were used to fill a 20 litre jerrycan with water. Find the number of cups that were used.



Section B (60 Marks)

- 21 In a class, pupils were served chicken (C) and meat (M) as shown in the diagram below.



- (a) If 46 pupils were not served meat at all, find the value of h . (03 marks)

- (b) Find the total number of pupils in the class. (02 marks)

- 22 (a) Work out: $111_{\text{two}} \times 11_{\text{two}}$. (02 marks)

(b) Change 201_{four} to base five.

(03 marks)

☐

23 (a) Express $0.4242\dots$ as a vulgar fraction in its simplest form.

(02 marks)

(b) Workout: $\frac{0.8 \times 0.24}{0.7 + 0.9}$

(03 marks)

24 Using a ruler and a pair of compasses only, construct a rhombus UVWX where $\overline{UV} = 6\text{cm}$ and angle UVW = 60° .

(04 marks)

(i) Measure the length of diagonal VX.

(01mark)

☐

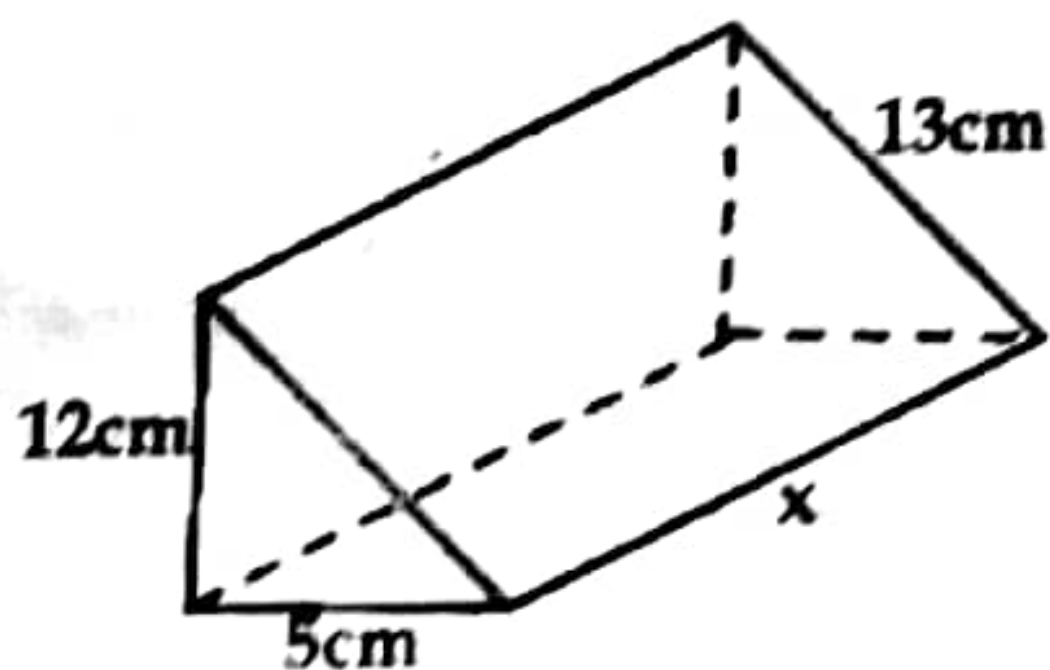
25 A mother had sh.30000 and used some to buy the following items.

- $2\frac{1}{2}$ kg of sugar at sh.4800 per kg.
- 1500ml of milk at sh.2000 a litre.
- $\frac{1}{2}$ kg of rice at sh.600 each kg.
- 2 packets of biscuits at sh.6000.

(a) Calculate the mother's balance.

(05 marks)

26 The sum of the lengths of all the edges of the prism below is 90cm.



(a) Find the value of x.

(03 marks)

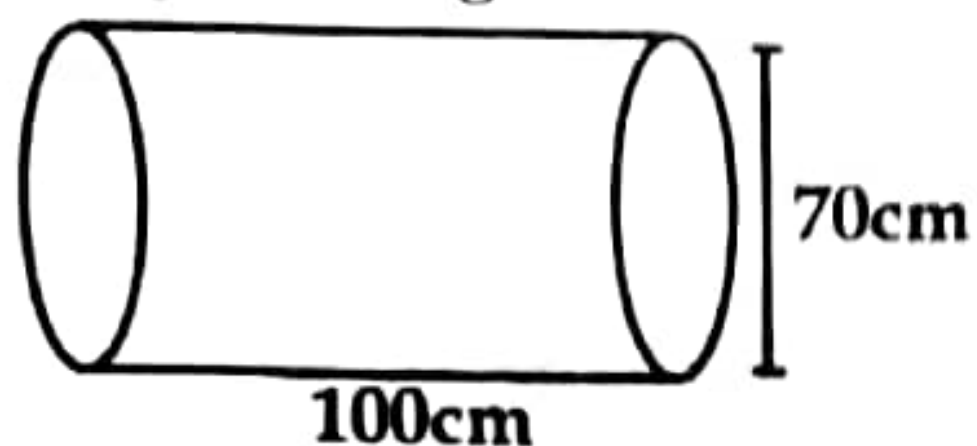
(b) Calculate the volume of the prism.

(02 marks)



27

The figure below shows a cylindrical metallic drum. The drum is to be cut open along the height to form a rectangular sheet.



(a) Find the length of the rectangular sheet formed. ($\pi = \frac{22}{7}$)

(03 marks)

(b) Calculate the area of the sheet formed.

(02 marks)

28

The exterior angle of a regular polygon is a fifth the interior angle.

(a) Name the polygon.

(03 marks)

(b) Calculate its interior angle sum.

(02 marks)



29

Kabali is 23 years old and Maswali is 44 years old.

(a) How many years ago was Maswali four times as old as Kabali?

(03 marks)

(b) How old was Maswali then?

(02 marks)

30

Three girls Pretty, Sharifah and Betty shared money in the ratio 2:7:3 respectively.

(a) If Sharifah and Betty got sh.180,000, how much money did they share altogether?

(03 marks)

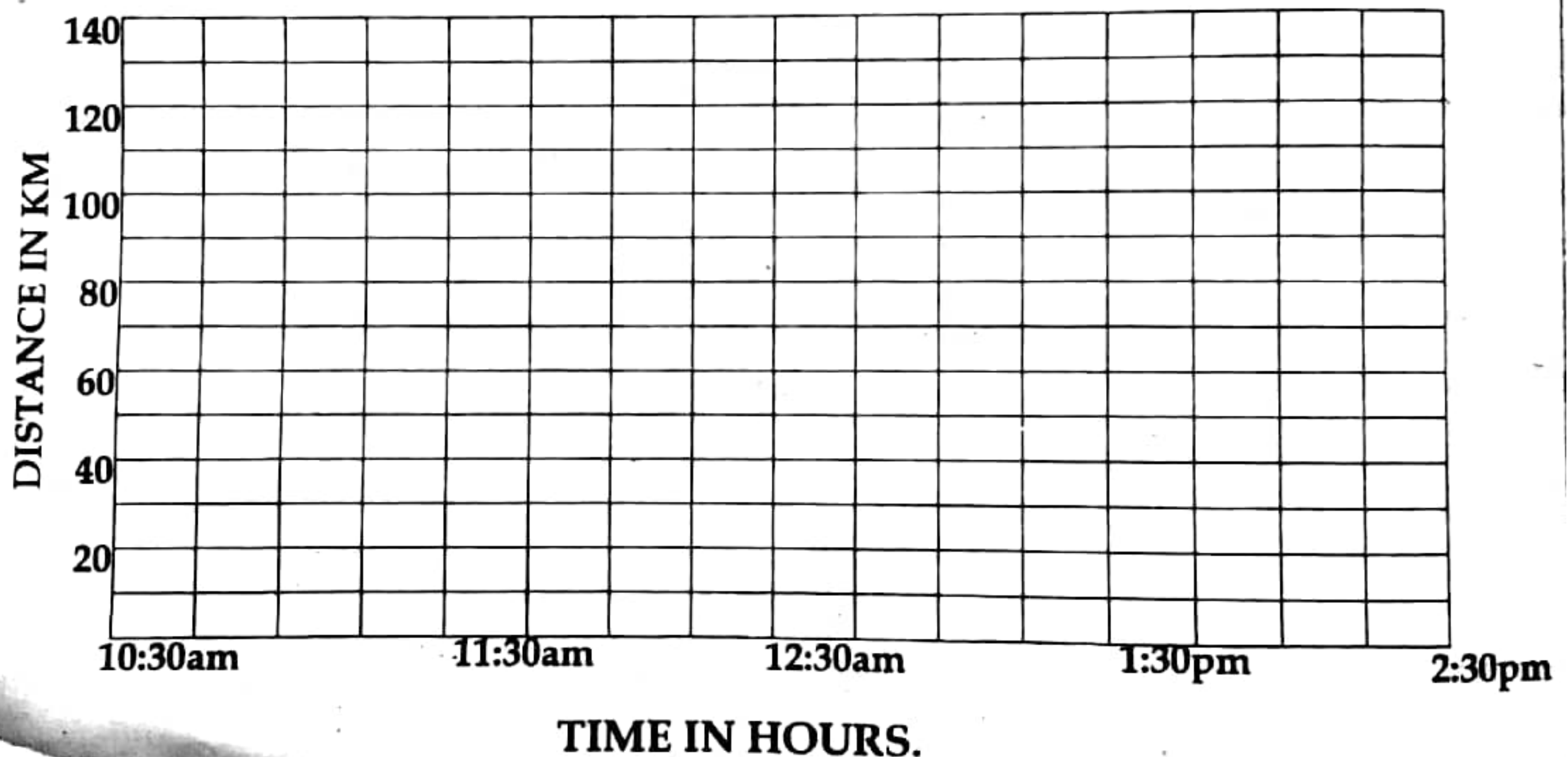
(b) How much money did pretty get?

(02 marks)



- 31 The mean age of six boys is 12 years. When two other boys join the group, the mean age is 13 years. The seventh boy is 6 years younger than the eighth boy. Find the age of the eighth boy. (05marks)

- 32 A motorist left town M at 10:30am moving at a speed of 35km/hr for 2 hrs. He rested for 30 minutes and then continued at 40km/hr for $1\frac{1}{2}$ hours to town N. (a) Represent the motorist's journey on the graph below. (03 marks)



- (b) Calculate the motorists' average speed for the whole journey. (02 marks)



Revision Tip.

Master simple methods and use them regularly.