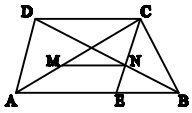
Answers/ Hints

1. a) $-\frac{7}{5}$ b) 3 2. a) 1, -7 , $-\sqrt{3}$ b) 0, 5, -3
3. a) Let x > y then x- 6y-2 = 0 b) 3x - 5y = 0
4. -5 5. (i) x = 2 6. Let no. of hrs. = x , wage = y equation is 5x - y + 8 = 0
   (i) Rs.48 (ii) Rs. 8
7. (2,3) 8. Let time = x hrs. , distance = y km. 120x - y = 0
   (i) 180km (ii) 5 hrs.
9. (i) (8,0) , (ii) (0,4) 10. (3,0) , (3, -4) , (-1,-4) and (-1, -2)
11. Hint: $\angle AEB = 180 - \frac{1}{2}(\angle A + \angle B)$ and $\angle A + \angle B = 360 - (\angle C + \angle D)$
12. Hint: Use angle sum property for $\triangle QAD$, $\triangle PCB$ and quadrilateral ABCD.
13. ans: $46^0, 100^0, 34^0$
14. Hint: Prove that $\triangle PXO \cong \triangle RYO$.
15. Hint: Prove that ABCQ and ACBR are parallelograms
16. Hint: Using angle sum property of quadrilateral prove $\angle A + \angle B = 180^0$ and $\angle A + \angle D = 180^0$.
17. Hint: **Prove ABQP is a parallelogram $\Longrightarrow$ AP = BQ**
    From $\triangle APO$, prove AP = OP and
    From $\triangle BQO$, prove BQ = OQ $\Longrightarrow$ PO = QO
18. Hint: From $\triangle CBE$ prove CF = $\frac{1}{2}$CE using M.P.T
19. Hint: Prove AEDF is a parallelogram by using M.P.T.AE =AF $\Longrightarrow$AEDF is a rhombus
    AD & EF are the diagonals of the rhombus.
20. Hint: Prove MN $\|$ AB and MN = $\frac{1}{2}$ (AB - CD)
    const. Join CN and extend to E.Prove $\triangle CDN \cong \triangle EBN \Longrightarrow$ CN = EN & CD = EB . use M.P.T in $\triangle$ CAE and proceed.



21. (1) D (2) B (3) C (4) C (5) B (6) A (7) A
    (8) C (9) B (10) C (11) D (12) B (13) A (14) C
    (15) D (16) A (17) B (18) C (19) D (20) A

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IX - X Girls Section