

**TMT V3 Top 20 Algebra Prep**

1. Simplify  $1\frac{1}{2} + \frac{2}{7}$  [272]

2. Solve  $6x^2 - 10x - 4 = 0$  [85]

3. Find the midpoint given (1,4) & (3,8) [218]

4. Solve  $A = \frac{1}{2}b \cdot h$  for  $b$  [205]

5. Simplify  $\frac{15x^9y}{25x^2y}$  [74]

6. Simplify  $(3a + 7n)^2$  [211]

7. Simplify  $\frac{\frac{1}{8}}{\frac{2}{7}}$  [50]

8. Simplify (PEMDAS)  $-1(x + 5)^2 + 3$  [212]

9. Clear fractions, solve  $\frac{3}{7}a + 2 = \frac{1}{3}$  [207]

10. Simplify  $(3a^3b^2)^2 \cdot 2(a^1b^2)$  [206]

11. Simplify  $\frac{2 \pm \sqrt{32}}{2}$  [214]

12. Multiply  $(x^2 + 2x - 3)(x - 5)$  [213]

13. Solve  $(x + 4)^2 = 15$  [208]

14. Simplify  $\frac{2x^2 + 10x + 12}{x^2 - 4}$  [209]

15. Given  $f(x) = -x^2 - 3x - 2$ , find  $f(-1)$  [231]

16. Write an equation using (-1,8) & (-2,-1) [210]

17. Simplify  $\frac{2}{9} \cdot \frac{1}{6}$  [42]

18. Find the distance between (2,10) & (6,1) [217]

19. Find 3 points on  $f(x) = x^2 - 3x + 1$  [271]

X	Y

20. Solve. Show 3+ steps of work [89]  
 $-(2x + 2) - 2(x - 3) = 9x + 1$