

**TMT Top 20 ACT Prep V5**

1. Given  $f(x) = -4x^2 - 2x - 3$ , find  $f(-2)$  [231]

2. Simplify  $(5a - 9n)^2$  [211]

3. Solve  $21x^2 - 15x - 6 = 0$  [85]

4. Find the distance between (0,-2) & (5,7) [217]

5. Simplify  $\frac{4}{9} \cdot \frac{7}{8}$  [42]

6. Simplify  $\frac{-2 \pm \sqrt{8}}{12}$  [214]

7. Simplify  $\frac{27x^5yz^2}{9x^2z^3}$  [74]

8. Simplify  $\frac{\frac{3}{4}}{\frac{5}{9}}$  [50]

9. Multiply  $(x^2 + 2x - 7)(x - 5)$  [213]

10. Simplify  $(2a^4b^3)^3 \cdot 3(a^2b^3)$  [206]

11. Solve  $(x - 6)^2 = 14$  [208]

12. Simplify  $2\frac{3}{4} - \frac{2}{5}$  [272]

13. Clear fractions, solve  $\frac{4}{9}a + 2 = \frac{1}{4}$  [207]

14. Find 3 points on  $f(x) = x^2 + 3x - 7$  [271]

X	Y

15. Simplify  $\frac{x^2 - 7x - 44}{x^2 - 121}$  [209]

16. Find the midpoint given (0,5) & (10,-3) [218]

17. Write an equation using (12,7) & (-9,-3) [210]

18. Simplify (PEMDAS)  $-2(x - 1)^2 + 6$  [212]

19. Solve  $V = \pi r^2 h$  for  $r$  [205]

20. Solve. Show 3+ steps of work [89]

$$-(6x + 4) + 2(x - 8) = 11x + 4$$