

Name _____
Date _____

MTH 135 - Introduction to Tech Math
Class #9 - B

Final Unit 3 Test A

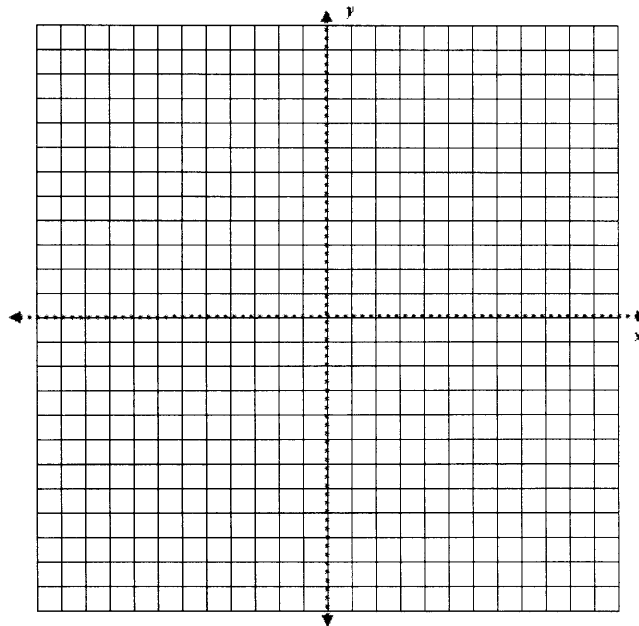
Quality - Accuracy - Transfer - 100%

Problem 1.

Using an "acceptable" graphing technique, graph and label the following system of simultaneous linear equations on the graph provided. Provide an appropriate check.

$$x - y = 6$$

$$2x + y = 3$$



Problem 2.

Solve the following system of simultaneous linear equations using substitution.

$$y + x = 1$$

$$2y - 8x = 1$$

Problem 3.

Solve the following system of simultaneous linear equations by elimination.

$$x + 2y = 11$$

$$3x - 5y = -22$$

Problem 4.

The sum of two voltages is 100V. If the higher voltage is doubled, and the lower voltage is halved, The sum becomes 155 V. Using two variables, find the voltages.

Problem 5.

5. _____

Factor: $3r - 3x + 3t^2$

Problem 6.

6. _____

Factor: $6x - 18xy$

Problem 7.

7. _____

Factor: $x^2 - 3x - 40$

Problem 8.

8. _____

Factor: $x^2 - 8x + 15$

Problem 9.

9. _____

Factor: $x^2 + 11x + 10$

Problem 10.

10. _____

Factor: $x^2 + 7x - 30$

Problem 11.

11. _____

Factor: $4x^2 - 25$

Problem 12.

12. _____

Factor: $25x^6 - 64t^8$

Problem 13.

13. _____

Factor: $3x^2 - 17x - 6$

Problem 14.

14. _____

Factor: $4x^2 + 33xy + 8y^2$

Problem 15.

15. _____

Factor Completely: $5x^4 - 80$

Section 2. Questions from Previous Exams

Problem 16.

16. _____

Evaluate: $(x + 4)(x - 3)(x - 2)$

Problem 17.

17. _____

Solve for x: $15 - \frac{x}{4} = 12$

Problem 18. Simplify. Write the answer in scientific notation:

18. _____

Simplify: $\frac{5.23 \times 10^5}{11.84 \times 10^{-2}}$

Problem 19.

19. _____

Evaluate: $(-5x^2y^3)(-6xy^2)$

Problem 20.

20. _____

Evaluate: $(2 - 5x) - (4 - (3x + 2))$