

Name:

Math 2

Date:

Review 4 Version A

[A] Circle whether each statement is true or false.

T F 1. $25x^2 - 20x + 4 = (5x - 2)^2$

T F 2. $9x^2 + 25 = (3x + 5)(3x + 5)$

T F 3. $6x^9y^8 - 10x^3y^8 = 2x^3y^8(3x^6 - 5)$

T F 4. $(x^2 + 10x + 21) \div (x + 3) = x + 7$

T F 5. $1 - 9x^2$ is a difference of squares.

T F 6. $48x^2 + 22x - 15 = (6x + 5)(8x - 3)$

T F 7. $x^2 - 64 = 0$ has exactly one solution.

T F 8. $3x(2x - 9) + (2x - 9) = (3x + 1)(2x - 9)$

T F 9. $6x(3x - 2)(x + 8)(x - 1) = 0$ has nine solutions.

T F 10. $x^4 - 81$ is completely factored as $(x^2 - 9)(x^2 + 9)$.

T F 11. One of the factors of $63x^2 + 125x + 50$ is $(2x + 11)$.

T F 12. $25x^2 - 100$ is completely factored as $(5x - 10)(5x + 10)$.

T F 13. If $(7x - 2)(12x + 5) = 40$, then $7x - 2 = 40$ or $12x + 5 = 40$.

T F 14. $x^2 + 12x + 20$ does not have solutions because it is not an equation.

[B] Solve by factoring. Show every step with equations only.

1. $x^2 + 2x = 35$

2. $6x^2 + 30x + 30 = 2x$

3. $20x^3 = -130x^2 - 200x$

4. $5x^2(x^2 - 4)(7x - 11)(6x^2 + 9x) = 0$

[C] Optional. Write a cubic equation in standard form that has the number of solutions stated.

1. three

2. two