

Classwork 5
Intermediate Algebra MTH 35
Topic: Algebraic and Rational Expressions I

Name: _____

Simplify the following expressions

1. $(3x + 4) + (7x + 2)$ **ANSWER** _____

2. $2(t - 1) + 3(t - 3)$ **ANSWER** _____

3. $4(u^2 + 1) - 3(u^2 + 2u + 1)$ **ANSWER** _____

4. $5(z^2 - 3z + 2) + 3(z^2 - z + 7)$ **ANSWER** _____

5. $3(y - 2) - 4(y - 7)$ **ANSWER** _____

6. $t + (t^2 - 4) - t(t + 3)$ **ANSWER** _____

7. $x(x + 3)$ **ANSWER** _____

8. $y(y - 2) + 2y(3 - y)$ **ANSWER** _____

9. $3u(u^3 - 2u^2 + 4u - 2)$ **ANSWER** _____

10. $t(t^2 - 4) - t(t + 3)$ **ANSWER** _____

Expand and simplify the following expressions

11. $(x + 1)(x - 2)$ **ANSWER** _____

12. $(x - 1)(x + 1) + x^2(x - 3)$ **ANSWER** _____

13. $y^2(y^2 + 3y + 2) - (y^4 + y)$ **ANSWER** _____

14. $(2u + 3)(3u - 1)$ **ANSWER** _____

15. $(t - 4)(2t - 1)$ **ANSWER** _____

Simply the following rational expressions

16. $2 - \frac{x}{x + 3}$ **ANSWER** _____

17. $\frac{1}{x + 5} - \frac{x}{x + 3}$ **ANSWER** _____

18. $u + 1 + \frac{u}{u + 1}$ **ANSWER** _____

19. $\frac{1}{x} - \frac{2}{x^2}$ **ANSWER** _____

20. $\frac{3}{t - 3} + \frac{5}{t + 2}$ **ANSWER** _____