Math 9 Lesson 2: Polynomials Extra Practice

1. $4a + 3a$

2. $a + 5a$

3. $4x - 9x$

4. $5x^2 - 7x^2 + x + 5x$

5. $3x(x - 4)$

6. $(5x - 1) - (7x + 2)$

7. $-3(5x^2 + 3x - 2)$

8. $2x(1 - 5x + 7x^2)$

9. $(x^2 + 5x - 3) - (4x^2 - 6x - 5)$

10. $(8a^2 - 6a) \div 2a$

11. $\frac{15x^2}{10x}$

12. $\frac{2}{3}x + \frac{x}{2}$

13. $\frac{x}{3} - \frac{x}{7}$

14. $\frac{4x}{5} - \frac{x}{6}$

15. $\frac{3t}{4} - 2t$
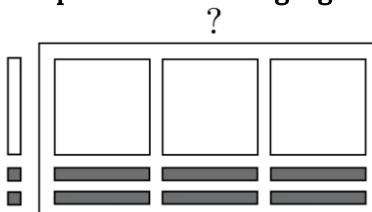
16. $\dfrac{-25x^2y^3 - 15x^5y^6}{5x^2y^3}$

17. $-\dfrac{8a^3b^2 - 12a^2b^3}{4a^2b^2}$
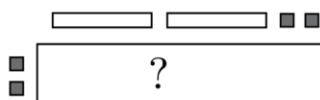
18. $x^3 - 4x^2 + 5x - (x^3 + 2x^2 - 3x)$

19. $-3(2a^3 + 6a^2) + a - (5a^2 - 2a^3)$

20. $\dfrac{1}{3}(6x^2 - 9x + 15) - \dfrac{3}{2}(6x^2 + 12x - 4)$

21. Complete the following algebra tile diagram:

22. Complete the following algebra tile diagram:

23. The polynomial $P(x) = 7x^4 + 2x^5 - x^2 + x^6 + 3$

    a. How many terms are in this polynomial?

    b. What is the coefficient of the x^2 term?

    c. Find the degree of this polynomial

    d. Find the constant term

24. What is the degree of the following polynomial? $5x^3y^2 + 3x^4y^4 - 2$