Algebra Review 1

1. $(19t^3 - 5t^2) - (7t^2 - 3t) + (-15t^3 - 8t)$

2. $(5y + 4)(3y - 8)$

3. $2y^2(2y - 7)(4y + 1)$

4. Factor: $12d^2 - 6d$

5. Factor: $x^2 - 9$

6. Factor: $3x^2 - 54x + 243$

7. Factor: $r^2 - 18r + 72$

8. Factor: $4s^2 - 4s - 15$

9. Simplify: $\frac{m * m * m * n * n}{r * r * s * s * s * s}$

10. $\left(\frac{b^{-3}}{c^{-2}}\right)^3$

11. $a^{-4} * a^{-3}$

12. $(m^5)^{-2}$

13. $\frac{a^4}{a^{-8}}$

14. $\frac{\sqrt{9x^2}}{\sqrt{81w^6}}$

15. $5(x - 3) - 3 = 2x - 6(2 - x)$

Answers to Algebra Review 1

Check your answers. If they do not match, try re-working the problem.
Tutorials are available for additional assistances.
Bring your work to the Math Center with specific questions.

1. $4t^3 - 12t^2 - 5t$

- http://patrickjmt.com/polynomials-adding-subtracting-multiplying-and-simplifying-ex-1/
- http://patrickjmt.com/polynomials-adding-subtracting-multiplying-and-simplifying-ex-2/
- http://patrickjmt.com/polynomials-adding-subtracting-multiplying-and-simplifying-ex-3/

2. $15y^2 - 28y - 32$

- http://patrickjmt.com/polynomials-adding-subtracting-multiplying-and-simplifying-ex-1/
- http://patrickjmt.com/polynomials-adding-subtracting-multiplying-and-simplifying-ex-2/
- http://patrickjmt.com/polynomials-adding-subtracting-multiplying-and-simplifying-ex-3/

3. $16y^4 - 52y^3 - 14y^2$

- http://patrickjmt.com/polynomials-adding-subtracting-multiplying-and-simplifying-ex-1/
- http://patrickjmt.com/polynomials-adding-subtracting-multiplying-and-simplifying-ex-2/
- http://patrickjmt.com/polynomials-adding-subtracting-multiplying-and-simplifying-ex-3/

4. $6d(2d - 1)$

- http://www.youtube.com/user/yourteachermathhelp#p/search/5/AcCN_isD3PY
- http://www.youtube.com/watch?v=COCIk0irz14&feature=related

5. $(x - 3)(x + 3)$

- http://www.youtube.com/user/yourteachermathhelp#p/search/5/AcCN_isD3PY
- http://www.youtube.com/watch?v=COCIk0irz14&feature=related

6. $3(x - 9)(x - 9)$ or $3(x - 9)^2$

- http://www.youtube.com/user/yourteachermathhelp#p/search/1/Nj9GgAM-dTQ

7. $(r - 6)(r - 12)$

- http://www.youtube.com/user/yourteachermathhelp#p/search/1/Nj9GgAM-dTQ

8. $(2s - 5)(2s + 3)$

- http://www.youtube.com/user/yourteachermathhelp#p/search/1/Nj9GgAM-dTQ

9. $\dfrac{m^3n^2}{r^2s^4}$

- http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-1/
- http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-2/
- http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-3/

10. $\dfrac{c^6}{b^9}$

- http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-1/
- http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-2/
- http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-3/

11. a^{-7} ***or*** $\frac{1}{a^7}$

- http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-1/
- http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-2/
- http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-3/

12. m^{-10} ***or*** $\frac{1}{m^{10}}$

- http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-1/
- http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-2/
- http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-3/

13. a^{12}

- http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-1/
- http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-2/
- http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-3/

14. $\frac{x}{3w^3}$

- http://patrickjmt.com/radicals-simplifying-radical-expressions-involving-variables-ex-1/

15. $x = -2$

- http://www.youtube.com/watch?v=9teKXGoWIQM&feature=relmfu
- http://www.youtube.com/watch?v=XfaWLVLfeJM&feature=relmfu