

# Lesson 9

## Exponent Rules

### Answers

- 1)  $x^{(5+3)} = x^8$
- 2)  $y^{(8-2)} = y^6$
- 3)  $a^{(3*4)} = a^{12}$
- 4)  $12x^{(2+5)} = 12x^7$
- 5)  $2^{(3*2)} = 2^6 = 64$
- 6)  $1 + 1/9 = 10/9$  (or approximately 1.11)
- 7)  $3m^{(7-3)} = 3m^4$
- 8)  $x^6 * x^4 = x^{10}$
- 9)  $6a^6 / (6a^3) = a^3$
- 10)  $1/4 + 1/4 = 2/4 = 1/2$
- 11)  $8x^4 y^6$
- 12)  $27m^6$
- 13)  $3x^4 y^3$
- 14)  $2^{(3+2-4)} = 2^1 = 2$
- 15)  $(x^2)^3 = x^6$
- 16)  $8x^6 * 9x^2 = 72x^8$
- 17)  $5(1)y^3 * 4x^2 y^{(-1)} = 20x^2 y^2$
- 18)  $10^{(-4)} = 0.0001$
- 19)  $a^4 b^6 / (a^3 b) = a b^5$
- 20) Count =  $2^t$ ; at  $t = 5$ :  $2^5 = 32$  bacteria