

Part A: Write as an exponent

(a) x to the power of $y =$

(b) $\pi \cdot \pi \cdot \pi =$

(c) $-2 \cdot -2 \cdot -2 =$

(d) $\left(\frac{-3}{8}\right)\left(\frac{-3}{8}\right) =$

Part B: Evaluate

(a) $(-2)^3 =$

(b) $-2^2 =$

(c) $3^2 \cdot 5^2 =$

(d) $2^3 \left(\frac{3}{4}\right)^2 =$

(e) $3^0 \cdot 2^3 =$

(f) $\left(\frac{2}{3}\right)^2 \div \left(\frac{1}{2}\right)^0 =$

Part C: Simplify

(a) $x^7 \cdot x^4 =$

(b) $(-a)^6 \div (-a)^4 =$

(c) $(x^{-2})^3 \div (x^3)^2 =$

(d) $3a^2 \cdot 5a^3 =$

(e) $\frac{(-6a^2)(8a^3)}{(2a^2)^2} =$

(f) $(5^{-3})^4 \div (5^2)^3 =$

Part D: Solve for n

(a) $3^n = 81$

(b) $3(2^n) = 48$

(c) $10(3^n) = 810$

(d) $5^n = 1$

(e) $2^n = \frac{1}{32}$

(f) $3^{-5} \cdot 3^n \div 3^{-2} = 3^4$

Part E: Simplify

(a) $2a^2 \cdot (3a)^2 =$

(c) $(-2a^2)^2 \cdot (3a^4)^3 =$

Part E: Simplify continue.

(b) $3n^0 \cdot 3n \cdot 2n^3 =$

(d) $\frac{(-2x^2)^3(5x^3)^2}{20x^2} =$

F. The area of a square is 196 cm^2 . What is the length of the perimeter?

©Hint – this is not tough... write the equation for area of a square, draw a picture and label what you know, then substitute.

G. A right triangle has a hypotenuse length of 10m. One leg is 6m long. How long is the third side?

©Hint – this is not tough... Draw a picture and label what you know use a variable to label what you do not know.

Part H: Evaluate:

(a) $-3\sqrt{25} =$

(f) $2\sqrt{16} - 2\sqrt{36} =$

(b) $\sqrt{100 - 19} =$

(g) $2\sqrt{10^2 + 44} =$

(c) $\sqrt{5 + (-12) + 6} =$

(h) $\frac{6\sqrt{25} - 8}{2} =$

(d) $\sqrt{\frac{49}{121}} =$

(i) $\frac{\sqrt{36}}{\sqrt{49}} =$

(e) $4\sqrt{36} - 3\sqrt{25} =$

(j) $\sqrt{0.81} =$