

Polynomials Review

1. State the degree, name, and leading coefficient of the following polynomials.

a) $3x^3 + 2y^3$ _____ b) $4x^2y^2 + 8$ _____

c) $x^2 + 3x + 2y$ _____ d) $3x^2y^2 + 7x^3y^2$ _____

2. Simplify the following polynomials

a) $(x - 1) + (5x - 1)$ b) $-(2x - 5) + (x + 1)$ c) $(x + 2)^2$

d) $xy(3x^2y)$ e) $-4ab(-5ab)$ f) $-3x - (xy + 7)$

g) $(x + y)^2$ h) $(2x + 3)(2x - 3)$ i) $-(2x + 1)(5x - 3)$

j) $(5x - 3y)(5x + 3y)$ k) $(x + 1)^2 - (3x - 1)$ l) $-2(x + 1)(x + 2)(x - 3)$

m) $3x + (3x + 9)^2$

n) $5xy(x + 1)^2$

o) $-10(x^2 - 3)^2$

p) $(2a + 3)(3a^2 - 2a + 1)$

q) $(5x - 1)(2x + 1) - (3x + 4)$

r) $x^2(2x^3 + 3)$

s) $(2x - 5)(3x + 2)$

t) $(x - 2)(x^2 - 4x + 4)$

u) $-5(a^2 - 3) + 2(-10a^2 + 9)$

v) $6ab - 3a(4b - 5a) + 2b(6a + 10b) - 9(3a^2 - 5b^2)$

3. Simplify the following:

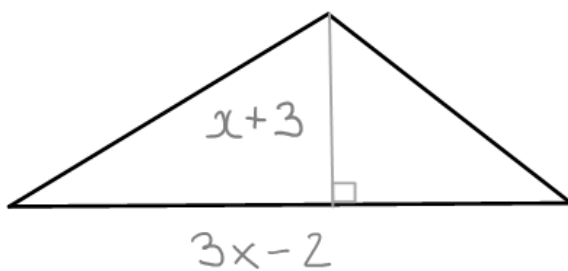
a) $\frac{5a^2-15a}{5a}$

b) $\frac{21t^3-35t^2}{14t}$

c) $\frac{5x(15x^2-25x)}{5x}$

d) $\frac{(12a^2b^3)(2ab^4)^3}{6a^2b^2}$

4. Find the area:



5. Find the area and the perimeter

