



Find a polynomial that represents the perimeter of the triangle.

1) The perimeter is found by adding the sides.

$$P = (x^3 + 3) + (x^3 - 3x^2 - 1) + (x^3 + 2x^2)$$

set up the sum

$$= x^3 + 3 + x^3 - 3x^2 - 1 + x^3 + 2x^2$$

drop the parenthesis

$$= x^3 + x^3 + x^3 - 3x^2 + 2x^2 + 3 - 1$$

regroup

$$= 3x^3 - 1x^2 + 2$$

add

Review of adding polynomials:

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

1) Rewrite to show the coefficients clearly:

$$(1x^2 + 4) + (1x^2 - 1x)$$

2) Drop the parenthesis:

$$1x^2 + 4 + 1x^2 - 1x$$

3) Regroup like terms together:

$$1x^2 + 1x^2 - 1x + 4$$

4) Now add the coefficients and copy the variable parts:

$$2x^2 - 1x + 4$$