

# Adding and Subtracting Polynomials

## 1. Add

a)  $(3x-4) + (2x-3)$

c)  $(5p+5) + (5p-5)$

b)  $(-a^2 - 3a + 2) + (-4a^2 + 2a)$

d)  $(2y^2 - 15) + (6y + 9)$

## 2. Simplify

a)  $(-3x+4) + (6x)$

c)  $(3n-4) + (7-4n)$

b)  $(2b^2-3) + (-b^2+2)$

d)  $(5a^2-3a+2) + (-4a^2+2a-3)$

## 3. What is the opposite of each polynomial?

a)  $-9x$

b)  $5d+6$

c)  $-2x^2+3x-5$

## 4. Subtract.

a)  $(8c-3) - (-5c)$

c)  $(y^2-5y) - (2y-y^2)$

b)  $(-3r^2-5r-2) - (r^2-2r+4)$

d)  $(6j^2-4j+3) - (-2j^2-5)$

## 5. Simplify

a)  $(2x-3) - (5x-1)$

c)  $(5-6w) - (2-3w)$

b)  $(-3b^2-5b) - (2b^2+4b)$

d)  $(m+7) - (m^2+7)$

## 6. Simplify

a)  $(6x-7) + (3x-1) + (x-4)$

b)  $(3a^2-4a) + (3a-5) - (a^2-1)$

c)  $(4t^2-t+6) - (t^2+2t-4) + (2t^2-3t-1)$

d)  $(2x-1.8) - (3.4x-2.1) - (0.9x-0.1)$

## 7. Identify any errors in the following work

a)  $(-2x^2+7) - (3x^2+x-5)$   
 $= (-2x^2+7) + (-3x^2-x+5)$   
 $= -2x^2-3x^2-x+7+5$   
 $= 5x^2-x+12$

b)  $(4p^2-p+3) - (p^2+3p-2)$   
 $= 4p^2-p+3-p^2-3p-2$   
 $= (4p^2-p^2) + (-p-3p) + (3-2)$   
 $= 3p^2-3p+1$