

PRACTICE -- Factoring Greatest Common Factors and Difference of Squares

* For #s 1 and 2, pull out the GCF (greatest common factor).

* For #s 3 and 4, apply the “difference of squares” factoring shortcut!

1 Fully factorise:

a $3x - 9$

b $2x^2 + 6x$

c $4x - 2xy$

g $x^3 + 2x$

h $x^3 + x^2$

i $2x^2 - 4x^3$

2 Fully factorise:

a $3(x + 5) + x(x + 5)$

b $a(b + 3) - 5(b + 3)$

c $x(x + 4) + x + 4$

d $x(x + 2) + (x + 2)(x + 5)$

e $a(c - d) + b(c - d)$

f $y(2 + y) - y - 2$

g $ab(x - 1) + c(x - 1)$

h $a(x + 2) - x - 2$

3 Fully factorise:

d $49 - 4x^2$

e $y^2 - 4x^2$

f $4a^2 - 25b^2$

g $81x^2 - 16y^2$

h $4x^4 - y^2$

i $9a^2b^2 - 16$

4 Fully factorise:

a $2x^2 - 8$

b $3y^2 - 27$

c $2 - 18x^2$

g $9b^3 - 4b$

h $4x^2y^2 - 1$

i $x^4 - y^4$