

Factoring Practice

* Common
trinomial
difference of squares

Fully factor the following:

a) $12x^2 - 9x^2$
 $= 3x(4 - 3x)$

b) $x^2 - 5x - 14$
 $= (x - 7)(x + 2)$

c) $8x^2 - 50$
 $= 2(4x^2 - 25)$
 $= 2(2x - 5)(2x + 5)$

d) $64 - x^2$
 $= (8 - x)(8 + x)$

e) $-6x^2 - 14$
 $= -2(3x^2 + 7)$

f) $3x^2 - 6x - 24$
 $= 3(x^2 - 2x - 8)$
 $= 3(x - 4)(x + 2)$

Practice Quiz # 1

Fully factor the following:

* → Common
→ trinomial ($x^2 + bx + c$)
→ difference of squares (two terms with a minus)

a) $x^2 - 3x - 10$
 $= (x - 5)(x + 2)$

b) $x^2 - 81$
 $= (x - 9)(x + 9)$

c) $2x^2 - 20x + 50$
 $= 2(x^2 - 10x + 25)$
 $= 2(x - 5)^2$

d) $4x^2 - 4x - 24$
 $= 4(x^2 - x - 6)$
 $= 4(x - 3)(x + 2)$

e) $2x^2 - 8$
 $= 2(x^2 - 4)$
 $= 2(x - 2)(x + 2)$

f) $6x^2 - 24x + 18$
 $= 6(x^2 - 4x + 3)$
 $= 6(x - 3)(x - 1)$