

Math 2201
Factoring Review

Factoring by Removing a GCF:

1. Factor the following:

a) $24w^2t + 16w^3t^2$

b) $4 - 24x$

c) $6x^2 + 6x$

d) $4x^2 + 5x$

e) $3x^4 - 12x^6 + 15x^2$

f) $10x^2 - 15x$

Factoring by Sum and Product:

2. Factor completely.

a) $x^2 - 16x + 64$

b) $x^2 + 7x + 6$

c) $2x^2 + 22x + 48$

d) $x^2 + 13x + 42$

e) $x^2 - 2x - 48$

f) $30 - 17x + x^2$

g) $y^2 - 7y - 60$

h) $x^2 + 10x + 21$

i) $5x^2 - 20x - 60$

Factoring by Logical Reasoning/Decomposition:

4. Factor completely.

a) $4x^2 + 8x + 3$

b) $5x^2 + 6x + 1$

c) $2x^2 - 7x + 6$

d) $3x^2 + 14x + 15$

e) $15x^2 - x - 2$

f) $9x^2 + 12x + 4$

g) $4x^2 - 20x + 25$

h) $6x^2 + 26x + 8$

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Choose what method!

5. Factor the following with the **appropriate** method.

a) $3x^2 + 9x$

b) $x^2 + 26x + 88$

c) $x^2 - 21x + 20$

d) $x^2 + 2x + 1$

e) $x^2 - 7x - 30$

f) $x^2 + 6x + 9$

g) $9x^2 - 6x + 1$

h) $2x^2 - 3x - 20$

i) $2x^2 - 5x - 3$

j) $3 - 4x + x^2$

k) $6x^2 + 13x + 5$

l) $10x^2 + 11x + 3$

m) $3x^2 + 6x + 3$

n) $16x^2 - 20x - 6$

o) $11x^2 - 12x + 1$

p) $4x^2 - 4x - 3$

q) $2x + x^2 - 15$

r) $6x^2 - 30x + 24$

s) $x^2 + 4x - 45$

t) $5x^2 + 6x + 1$