

MPM2D MSIP Factoring Practice "Day 1"...Do your best. Then, check answers from the Key that is on the back!

**REMEMBER** - if the leading term is negative, factor out the negative first!

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**Factor each completely.**

1)  $25v^2 + 5v$

2)  $5r^2 + 9r + 4$

3)  $-7p^2 + 13p - 6$

4)  $2b^2 - 5b - 18$

5)  $7x^2 - 3x$

6)  $2p^2 - 8$

7)  $9 - 24k + 16k^2$

8)  $m^2 - 4$

9)  $64n^2 - 100$

**Factor the common factor out of each expression.**

10)  $-18yx^2 + 90y^2 - 63y$

11)  $-24a + 42ab^2 - 54a^4b^2$

12)  $90x^4 + 80x^4y^4 - 80x^6y$

**Factor each completely.**

13)  $9a^2 - 30ab + 25b^2$

14)  $4x^2 - 9y^2$

15)  $4a^2 + 20ab + 25b^2$

16)  $2a^3 - a^2 + 8a - 4$

17)  $2x^3 - 10x^2 + 3x - 15$

18)  $n^3 + 3n^2 + 4n + 12$

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**Factor each completely.**

1)  $25v^2 + 5v$

$$5v(5v + 1)$$

2)  $5r^2 + 9r + 4$

$$(5r + 4)(r + 1)$$

3)  $-7p^2 + 13p - 6$

$$-(7p - 6)(p - 1)$$

4)  $2b^2 - 5b - 18$

$$(2b - 9)(b + 2)$$

5)  $7x^2 - 3x$

$$x(7x - 3)$$

6)  $2p^2 - 8$

$$2(p + 2)(p - 2)$$

7)  $9 - 24k + 16k^2$

$$(3 - 4k)^2$$

8)  $m^2 - 4$

$$(m + 2)(m - 2)$$

9)  $64n^2 - 100$

$$4(4n + 5)(4n - 5)$$

**Factor the common factor out of each expression.**

10)  $-18yx^2 + 90y^2 - 63y$

$$9y(-2x^2 + 10y - 7)$$

11)  $-24a + 42ab^2 - 54a^4b^2$

$$6a(-4 + 7b^2 - 9a^3b^2)$$

12)  $90x^4 + 80x^4y^4 - 80x^6y$

$$10x^4(9 + 8y^4 - 8x^2y)$$

**Factor each completely.**

13)  $9a^2 - 30ab + 25b^2$

$$(3a - 5b)^2$$

14)  $4x^2 - 9y^2$

$$(2x + 3y)(2x - 3y)$$

15)  $4a^2 + 20ab + 25b^2$

$$(2a + 5b)^2$$

16)  $2a^3 - a^2 + 8a - 4$

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

17)  $2x^3 - 10x^2 + 3x - 15$

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

18)  $n^3 + 3n^2 + 4n + 12$

$$(n^2 + 4)(n + 3)$$