

Math 2 Unit 2.5 Examples of Factoring (leading coefficient is not prime)

Factor each completely.

1) $6n^2 - 47n + 90$

2) $6v^2 - 7v - 90$

3) $8p^2 - 22p - 21$

4) $6x^2 + 49x + 49$

5) $6b^2 + 47b - 8$

6) $10n^2 + 33n - 54$

7) $9a^2 - 9a + 2$

8) $9n^2 + 49n + 20$

9) $9x^2 - 54x + 80$

10) $4x^2 - 9x + 2$

$$11) 10m^2 + 97mn - 30n^2$$

$$12) 8a^2 - 51ab - 35b^2$$

$$13) 4x^2 + 13xy - 12y^2$$

$$14) 6x^2 + 43xy + 72y^2$$

$$15) 9x^2 - 13xy + 4y^2$$

$$16) 9x^2 + 71xy + 56y^2$$

$$17) 9u^2 + 82uv - 80v^2$$

$$18) 9x^2 - 27xy + 20y^2$$

$$19) 9x^2 - 64y^2$$

$$20) 9a^2 + 26ab + 16b^2$$

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Factor each completely.

1) $6n^2 - 47n + 90$

$(2n - 9)(3n - 10)$

2) $6v^2 - 7v - 90$

$(3v + 10)(2v - 9)$

3) $8p^2 - 22p - 21$

$(2p - 7)(4p + 3)$

4) $6x^2 + 49x + 49$

$(x + 7)(6x + 7)$

5) $6b^2 + 47b - 8$

$(b + 8)(6b - 1)$

6) $10n^2 + 33n - 54$

$(2n + 9)(5n - 6)$

7) $9a^2 - 9a + 2$

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

8) $9n^2 + 49n + 20$

$(n + 5)(9n + 4)$

9) $9x^2 - 54x + 80$

$(3x - 10)(3x - 8)$

10) $4x^2 - 9x + 2$

$(x - 2)(4x - 1)$

$$11) 10m^2 + 97mn - 30n^2$$
$$(m + 10n)(10m - 3n)$$

$$12) 8a^2 - 51ab - 35b^2$$
$$(a - 7b)(8a + 5b)$$

$$13) 4x^2 + 13xy - 12y^2$$
$$(x + 4y)(4x - 3y)$$

$$14) 6x^2 + 43xy + 72y^2$$
$$(3x + 8y)(2x + 9y)$$

$$15) 9x^2 - 13xy + 4y^2$$
$$(x - y)(9x - 4y)$$

$$16) 9x^2 + 71xy + 56y^2$$
$$(x + 7y)(9x + 8y)$$

$$17) 9u^2 + 82uv - 80v^2$$
$$(u + 10v)(9u - 8v)$$

$$18) 9x^2 - 27xy + 20y^2$$
$$(3x - 4y)(3x - 5y)$$

$$19) 9x^2 - 64y^2$$
$$(3x - 8y)(3x + 8y)$$

$$20) 9a^2 + 26ab + 16b^2$$
$$(a + 2b)(9a + 8b)$$