

ALGEBRA 2

Write your
questions here!



Ex 1:

Differences of Squares

Ex 2:

Ex 3:

Ex 4:

Ex 5:

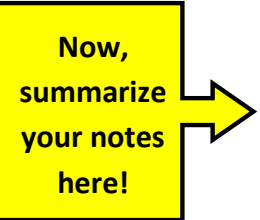
Ex 6:

You Try! Factor Completely

1)

2)

SUMMARY:



1.2 Advanced Factoring

PRACTICE

| DIRECTIONS: Factor completely. | | |
|--------------------------------|-------------------------------|----------------------|
| 1) $x^4 + x^2 - 12$ | 2) $16x^4 - 81$ | 3) $x^4 - 9x^2 + 20$ |
| 4) $3x^4 - x^2 - 2$ | 5) $28y^3 + 24y^2 - 35y - 30$ | 6) $h^4 + 9h^2 + 8$ |

$$7) 10n^3 - 5n^2 - 14n + 7$$

$$8) m^4 - 1$$

$$9) 28u^3 + 8u^2 - 7u - 2$$

$$10) (2n^3 - 10n^2 - 5n + 25)(n^2 + 8n + 15)$$

$$11) (b^4 - 6b^2 + 8)(5b^4 - 11b^2 - 12)$$

$$12) (4x^2 - 8x - 5)(4x^2 - 16x + 15)$$

$$13) (n^2 - 7n + 12)(12n^3 - 3n^2 + 4n - 1)$$

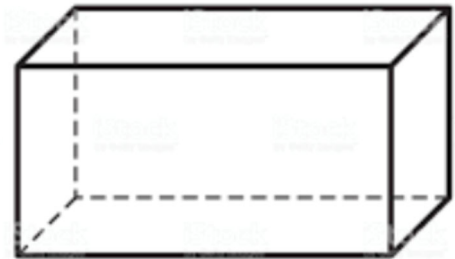
Directions: Factor completely.

1) $6p^3 - 15p^2 - 10p + 25$

2) $(5x^4 + 3x^2 - 2)(x^4 - 4x^2 + 3)$

3) The following prism has a volume of $5x^3 + x^2 - 20x - 4$.

a) What are the possible side lengths, in terms of x , for the prism?



b) Explain your answer and justify how you know that the sides you found are indeed possible lengths. (use complete sentences, diagrams, shown work).

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D IT!

4) Three of the Algebro's have tackled the following math problem. Choose which Algebro has the **BEST** answer. Then **justify** why you believe that is the best answer.

Factor: $(x^4 - 11x^2 + 28)(x^3 + 2x^2 - 3x - 6)$

Mr. Bean: $(x^2 - 7)(x + 2)(x - 2)(x^2 - 3)(x + 2)$

Mr. Brust: $(x - 7)(x + 2)(x - 2)(x - 3)(x + 2)$

Mr. Kelly: $(x^2 - 7)(x + 2)^2(x^2 - 3)(x - 2)$

EXIT TICKET –

Which expressions are factors of $6x^3 - 5x^2y - 24xy^2 + 20y^3$.

Select ALL that apply.

A. $x^2 + 4y^2$

B. $6x - 5y$

C. $x + 2y$

D. $6x + 5y$

E. $x - 2y$