

FACTORING POLYNOMIALS – Day 2

Remember: _____ is the opposite of multiplication.

Multiply: $(3x + 6)(x - 12) = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Now factor the answer.

Factoring Steps:

- 1) Factor out the GCF (which is _____)
- 2) What is the sum: _____ What is the product: _____
- 3) Find the factors of the product that add up to your sum.

- 4) Fill in your parenthesis
____(x____)(x____)

Factor completely.

1) $2x^2 - 6x - 36 = \underline{\hspace{2cm}}$

2) How is $x^2 - 11x + 28$ expressed as the product of two binomials?

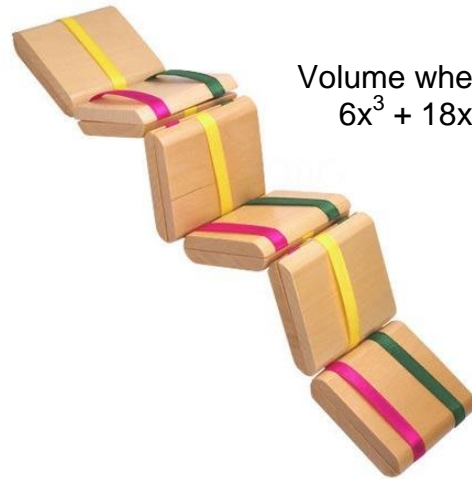
3) Factor the following binomial: $x^2 - 25$

4) $x^2 + 3x - 10 = \underline{\hspace{2cm}}$

5) $3x^2 + 30x + 27 =$ _____

6) Identify the expression that represents $4x^2 - 36$ in factored form.

7) The toy shown below is made of several wooden blocks that fold together to form a rectangular prism or unfold to form a "ladder." What expressions can be used to represent the dimensions of the toy when it is folded up?



Volume when folded =
 $6x^3 + 18x^2 + 12x$

8) Which function is equivalent to $g(x) = 4x^2 + 7x - 2$?

- A. $g(x) = (x - 2)(4x + 1)$
- B. $g(x) = (x + 2)(4x - 1)$
- C. $g(x) = (x + 2)(4x + 1)$
- D. $g(x) = (2x - 2)(2x + 1)$