

## Do Now

Solve for  $x$  for the following:

1)  $r^2 + 9 = 10r$

2)  $7x^2 = 18x - 11$

3)  $(z + 1)(z - 5) = 16$

## Chapter 5 Review

## Dividing Monomials

Simplify

1)  $\frac{48x^3yz^6}{72x^5yz}$

## GCF of Monomials

20)  $25x^2y, 40x^3$

- Find the GCF of the coefficients
- Find the smaller power of common variables
- Combine these

## Divide

Simplify

3)  $\frac{9m + 54}{9}$

## Divide

Simplify

4)  $\frac{108uv - 72v}{9v}$

## Factoring:

5)  $12x^5 - 4x^3 + 16x$

## USING THE FOIL METHOD

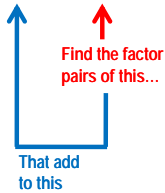
Front  
Outside  
Inside  
Last

6) Simplify the following

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

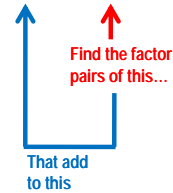
## Factorize

7)  $x^2 - 15x + 36 = (x \quad)(x \quad)$



## Factorize

8)  $x^2 - 5x - 24 = (x \quad)(x \quad)$



## Factorize

9)  $n^2 - 16 =$

10)  $x^2 - 169 =$

11)  $36m^2 - 9n^2 =$

## Factoring Perfect Squares

$$a^2 + 2ab + b^2 = (a + b)^2$$
$$a^2 - 2ab + b^2 = (a - b)^2$$

- 1) Is the first term a square?
- 2) Is the last term a square?
- 3) Is the middle term (ignore sign) twice the product of the roots of the first and last terms

12)  $p^2 + 16p + 64$

## Factoring Perfect Squares

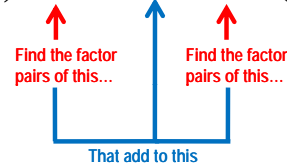
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$$a^2 - 2ab + b^2 = (a - b)^2$$

- 1) Is the first term a square?
- 2) Is the last term a square?
- 3) Is the middle term (ignore sign) twice the product of the roots of the first and last terms

13)  $9x^2 - 42x + 49$

## Factorize

14)  $2a^2 + 11a + 5 = ( \quad ) ( \quad )$



## Factoring polynomials by breaking them into groups

15)  $u^2 + 3u + uv + 3v$

## Factor completely:

16)  $20 - 60x + 45x^2$

17)  $10k^3 + 25k - 35k^2$

## Solve

18)  $2x^2 + 5x - 12 = 0$