



## Identifying Zeros of Binomials



### Zero Product Property

ZERO PRODUCT PROPERTY STATES THAT FOR ALL REAL NUMBERS A AND B, IF  $AB=0$  THEN EITHER  $A=0$  OR  $B=0$  OR BOTH  $A=0$  AND  $B=0$ .

#### EXAMPLE

$$XY=0 \rightarrow X=0 \text{ OR } Y=0$$

### Identifying Zeros of Binomials

**Binomial** is an algebraic expression which contains just two terms e.g.  $(x-2)(x+3)$

Examples

Identify zeros of  $(a-4)(a+6)$

Putting  $(a-4)(a+6)$  equal to zero to identify its zeros i.e.  $(a-4)(a+6) = 0$

According to Zero Product Property:

$$\text{If } (a-4)(a+6) = 0 \rightarrow a-4=0 \rightarrow a=4 \quad \text{OR} \quad a+6=0 \rightarrow a=-6$$

**Meets: Common Core Standard High School – HSA-APR.B.3**