

Name: Key Date: 5/5/16 Hour: \_\_\_\_\_

### Zero Product Property Extra Practice

<p>Use the Zero-Product Property to solve each equation.</p> $(x+5)(x-3)=0$ <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; border-right: 1px solid black;"> <math display="block">\begin{array}{r} x+5=0 \\ -5 \quad -5 \\ \hline \boxed{x=-5} \end{array}</math> </td> <td style="width: 50%; text-align: center;"> <math display="block">\begin{array}{r} x-3=0 \\ +3 \quad +3 \\ \hline \boxed{x=3} \end{array}</math> </td> </tr> </table>	$\begin{array}{r} x+5=0 \\ -5 \quad -5 \\ \hline \boxed{x=-5} \end{array}$	$\begin{array}{r} x-3=0 \\ +3 \quad +3 \\ \hline \boxed{x=3} \end{array}$	<p>Use the Zero-Product Property to solve each equation.</p> $(x-2)(x+9)=0$ <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; border-right: 1px solid black;"> <math display="block">\begin{array}{r} x-2=0 \\ +2 \quad +2 \\ \hline \boxed{x=2} \end{array}</math> </td> <td style="width: 50%; text-align: center;"> <math display="block">\begin{array}{r} x+9=0 \\ -9 \quad -9 \\ \hline \boxed{x=-9} \end{array}</math> </td> </tr> </table>	$\begin{array}{r} x-2=0 \\ +2 \quad +2 \\ \hline \boxed{x=2} \end{array}$	$\begin{array}{r} x+9=0 \\ -9 \quad -9 \\ \hline \boxed{x=-9} \end{array}$
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## Section 8.4: Zero product property, GCF

Solve each equation by using the zero product property.

1)  $(n-5)(n+3)=0$

$n=5$   $n=-3$

2)  $(x-3)(x+1)=0$

$x=3$   $x=-1$

3)  $(a+3)(a+8)=0$

$a=-3$   $a=-8$

4)  $m(m+7)=0$

$m=0$   
 $m=-7$

5)  $(3x-8)(x-3)=0$

$x=\frac{8}{3}$   $x=3$

6)  $(3p+1)(8p-3)=0$

$p=-\frac{1}{3}$   $p=\frac{3}{8}$

7)  $(a-7)(a-3)=0$

$a=7$   
 $a=3$

8)  $(4v+5)(v+7)=0$

$v=-\frac{5}{4}$   
 $v=-7$

9)  $3p(5p-1)=0$

$p=0$   
 $p=\frac{1}{5}$

10)  $(v+8)^2=0$

$v=-8$

Factor the common factor out of each expression.

11)  $16r^4 - 28r$

$4r(4r-7)$

12)  $-63p + 56$

$7(-9p+8)$

13)  $50r + 10$

$10(5r+1)$

14)  $-20x^2 - 24x$

$-4x(5x+6)$