

Multiplying and Dividing Real Numbers

Even Amount of $(-)$, Answer is $(+)$

Odd Amount of $(-)$, Answer is $(-)$

Inverse Property of Multiplication
(Multiplicative Inverse or Reciprocal)

Algebra
 $a \cdot (\frac{1}{a}) = 1$

Example
 $-7(-\frac{1}{7}) = 1$

Simplify each expression.

1) $-3(-8)$ Even
24

2) $-24 \div 4$ Odd
-6

3) $7(-2)$ Odd
-14

4) $\pm \sqrt{81} = \boxed{\pm 9}$

5) $-\sqrt{\frac{9}{64}} = \boxed{-\frac{3}{8}}$

6) $-8 \div (-\frac{16}{5})$

$-\frac{8}{1} \cdot (-\frac{5}{16})$

$\boxed{\frac{5}{2} \text{ or } 2\frac{1}{2}}$

Division Involving 0

Algebra

$0 \div a = 0$

$a \div 0 = \text{Undefined}$

Example

$0 \div 9 = 0$

$9 \div 0 = \text{Undefined}$