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2.5 Mult and div int.

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2.5 Multiplying and Dividing Real Numbers

To determine the sign of the answer to a multiplication or division problem:

- Count the number of negative terms being multiplied or divided.
- If there is an **odd** number of negative terms, the answer is **negative.**
- If there is an **even** number of negative terms, the answer is **positive**.

Examples: 2 neg = even = + 1 neg = odd = −

1) $-2(-3)5$ → 30

2) $-9(4)$ → -36

3) $\frac{-6}{-2} = 3$

4) $-1 + (-5)(4)$ → $-1 + -20$ → -21

5) $-3(-8)(-2)$ → -48

Your Turn: Page 93 1- 4

1) $3(-5)$ → -15

2) $-2(4)(5)$ → -40

3) $-\frac{1}{3}(-3)(-2)$ → -2

4) $(-2)^3$ → $(-2)(-2)(-2)$ → -8

More Examples: Simplify

6) $-2(-x)$ → $2x$

7) $3(-n)(-n)(-n)$ → $-3n^3$

say: the opposite of x

8) $-1(-a)^2$ → $-1(-a)(-a)$ → $-1a^2$ or $-a^2$

9) Evaluate $-4(-1)(-x)$, when $x = -5$

$-4(-1)(5)$ → 20

$-4(-1)(--5)$ → 20

Your Turn: Pages 94 - 95 #'s 5 - 11 odd

5) $8(-t)$ → $-8t$

7) $-7(-b)^3$ → $-7(-b)(-b)(-b)$ → $7b^3$

9) $3(4)(-x)$, $x=-2$ → $3(4)(2)$ → 24 (opposite of x)

11) $7(x^2)(-5)$ → $7(-2)(-2)(-5)$ → -140