2.4: Multiply Real Numbers / 2.6 Divide Real Numbers

Goals: *Add numbers with same signs
*Add numbers with different signs

Rules: $P \cdot P = P$ $\quad P \div P = P$

$P \cdot N = N$ $\quad N \cdot P = N$ $\quad P \div N = N$ $\quad N \div P = N$

$N \cdot N = P$ $\quad N \div N = P$

Ex: $-3(6)$

-18

Ex: $2(-4)(-3)$

24

Ex: $-\frac{1}{2}(-4)(-3)$

-6

Ex: $-2(-7)$

14

Ex: $-0.5(-4)(-9)$

-18

Ex: $\frac{4}{3}(-3)(7)$

-28

Ex: $-16 \div 4$

-4

Ex: $-20 \div \frac{5}{3}$

-12

Ex: $-\frac{3}{8} \div \left(-\frac{3}{10}\right)$

$\frac{5}{4}$

Multiplicative Inverse: Reciprocal. A number, when multiplied by its multiplicative inverse, equals 1.

Ex: In 1900 the elevation of Mono Lake, CA was about 6416 feet. From 1900 to 1950, the average rate of change in elevation was about –0.12 feet/year. From 1950 to 2000 the average rate of change was about –0.526 feet/year.

a) Find the elevation in the year 1950.

The elevation is changing at a rate of –0.12 feet per year for 50 years.

6416 + (50)(–0.12)

6416 + –6

6410 feet

b) Find the elevation in the year 2000.

The elevation is changing at a rate of –0.526 feet per year for 50 years.

6410 + (50)(–0.526)
6410 + –26.3
6383.7 feet

Ex: The table gives the daily minimum temperatures (in degrees Fahrenheit) in Barrow, Alaska, for the first five days of February 2004. Find the mean daily minimum temperature.

Day in Feb.	1	2	3	4	5
Min. Temp.	–21	–29	–39	–39	–22

Mean = average. Find total temperature and divide by 5 for 5 days.

$$\frac{-21+(-29)+(-39)+(-39)+(-22)}{5} = \frac{-150}{5} = -30$$