Section 2.5 Division with Negative Numbers

1. Rule for Dividing with Positive and Negative Numbers: To divide any two numbers
   - Divide their absolute values.
   - The answer is positive if both the original numbers have the same sign.
   - The answer is negative if the original numbers have different signs.

In other words,
   - The quotient of two positive numbers is a positive number.
   - The quotient of two negative numbers is a positive number.
   - The quotient of a positive number and a negative number (or a negative number and a positive number) is a negative number.

Example: Simplify each of the following.

a. \( 25 \div (-5) \)

b. \( (-8) \div (-2) \)

c. \( (-3)(-10) \div (-6) \)

d. \( 14 \div (-10 + 8) \)

e. \( -15(-2) + (-4) \)

f. \( -3 \cdot 6 \div (-9) \)