



Math Study Strategies

Multiplication and Division of Signed Numbers

To multiply or divide signed numbers, follow the guidelines below:

- 1) If the numbers to be multiplied/divided have the **same sign**, the product/quotient is **positive**.
- 2) If the numbers to be multiplied/divided have **different signs**, the product/quotient is **negative**.

+	$\times \div$	+	=	+
-	$\times \div$	-	=	+
-	$\times \div$	+	=	-
+	$\times \div$	-	=	-

Multiplication Examples

$$4 \times 3 = ?$$

The sign of both numbers is the same so the product is positive

$$4 \times 3 = 12$$

$$(-5) \times (-6) = ?$$

The sign of both numbers is the same so the product is positive

$$(-5) \times (-6) = 30$$

$$(-2) \times 8 = ?$$

The sign of the two numbers is different so the product is negative

$$(-2) \times 8 = -16$$

$$7 \times (-3) = ?$$

The sign of the two numbers is different so the product is negative

$$7 \times (-3) = -21$$

Division Examples

$$4 \div 2 = ?$$

The sign of both numbers is the same so the quotient is positive

$$4 \div 2 = 2$$

$$(-15) \div (-5) = ?$$

The sign of both numbers is the same so the quotient is positive

$$(-15) \div (-5) = 3$$

$$(-36) \div 9 = ?$$

The sign of the two numbers is different so the quotient is negative

$$(-36) \div 9 = -4$$

$$66 \div (-11) = ?$$

The sign of the two numbers is different so the quotient is negative

$$66 \div (-11) = -6$$

