

## Review of Signed Numbers

### **Adding Signed Numbers:**

Case 1: If the numbers have the same signs, add their absolute values and use the common sign in the answer.

Case 2: If the numbers have different signs, subtract their absolute values and use the sign of the number with the larger absolute value.

Ex. 1  $-5 + (-8) = -13$

Ex. 2  $-7 + 4 = -3$

Ex. 3  $12 + (-2) = 10$

Ex. 4  $-15 + (-7) = -22$

### **Subtracting Signed Numbers:**

Change the operation of subtraction to the operation of addition and change the sign of the number to the right of the operation. Then follow the rules for adding signed numbers.

$$a - b = a + (-b) \text{ and } a - (-b) = a + b$$

Ex. 5  $-3 - 6 = -3 + (-6) = -9$

Ex. 6  $5 - 8 = 5 + (-8) = -3$

Ex. 7  $-9 - (-11) = -9 + 11 = 2$

Ex. 8  $4 - (-7) = 4 + 7 = 11$

### **Multiplying and Dividing Signed Numbers:**

$$(-\#) \cdot (+\#) = - \text{ Ans.}$$

$$(-\#) \div (+\#) = - \text{ Ans.}$$

$$(+\#) \cdot (-\#) = - \text{ Ans.}$$

$$(+\#) \div (-\#) = - \text{ Ans.}$$

$$(-\#) \cdot (-\#) = + \text{ Ans.}$$

$$(-\#) \div (-\#) = + \text{ Ans.}$$

Ex. 9  $(-3)(-6) = 18$

Ex. 10  $16 \div (-8) = -2$

Ex. 11  $(-2)(11) = -22$

Ex. 12  $-35 \div (-5) = 7$

Reminders on exponents:

Ex. 13  $-2^4 = -2 \cdot 2 \cdot 2 \cdot 2 = -16$

Ex. 14  $(-2)^4 = (-2) \cdot (-2) \cdot (-2) \cdot (-2) = +16$