**P12**

**Relative Velocity – Practice**

Determine what the relative velocities are in the following situations:

**Situation 1**:

Observer C

Stationary

Observer B

40 m/s

Observer A

30 m/s

1. What is the velocity of B relative to A? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What is the velocity of A relative to B? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. What is the velocity of B relative to C? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Situation 2**:

Observer B

60 m/s

40 m/s

Observer A

1. What is the velocity of A relative to B? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What is the velocity of B relative to A?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Situation 3**:

90 m/s

30 m/s

Observer A

Observer B

1. What is the velocity of A relative to B? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What is the velocity of B relative to A? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_