

## Lesson 8 Worksheet

1. A hot air balloon is accelerating with a net force of  $1000\text{N}$  [up]. If we know that the gravitational force acting on the balloon is  $3000\text{N}$  [down], determine the applied force by the burner (flame). Identify up as the positive direction.
2. Three confused sleigh dogs are trying to pull a sled across the Alaskan snow. Alutia pulls west with a force of  $35\text{ N}$ , Seward pulls east with a force of  $42\text{ N}$ , and big Kodiak pulls west with a force of  $53\text{ N}$ . What is the net force on the sled? Identify east as the positive direction.