Motion Homework Solutions

1. The resulting vector is 20m in the West direction.
   1. Scalar
   2. Vector
   3. Vector
   4. Scalar
   5. Scalar
   6. Scalar
   7. Vector
2. 1. 5.1 m/s
   2. 2.55 m/s
   3. 0.463 m/s
3. 1. 2.04 s
   2. 20.4 m
4. 1. 18.55 miles per second
5. 1. 3.125 m/s/s
   2. 25 m/s
   3. 12.5 m/s
6. 1. 44.1 m/s
   2. 122.5 m
   3. 1.45 N downward
   4. 5.8 m/s/s
7. 1. The cheetah travels 15,000 meters and the gazelle travels 11666.67 meters.
   2. 10 minutes
8. 1. T/1.414