**Scalars and Vectors**

**Scalar:**

**Vector:**

**Scalars Vectors**

**Distance vs. Displacement**

**Distance:**

**Displacement:**

**Example 1:** Hailey is walking as shown.

1. What DISTANCE did Hailey walk?

b) What was Hailey’s DISPLACEMENT?

**Example 2:** Steve walked with Hailey part of the way.

1. What DISTANCE did Steve walk?

b) What was Steve’s DISPLACEMENT?

**Direction**

**Scalar and Vector Symbols**

Distance - Displacement –

Speed - Velocity –

Time - Acceleration –

Mass - Force –

Volume - Momentum –

Energy –

**Example 3:**

Dylan runs four laps around a 400m circular track.

1. What DISTANCE did Dylan run?

b) What was Dylan’s DISPLACEMENT?

**Example 4:**

Jamie is on fire. She runs around as shown below. Calculate Jamie’s displacement.

**Vector Addition**

**Example 5:**

Justin walks 3m N, then 2m S, then 5m N, then 8m S, then 1m N, then 6m N. What is Justin’s displacement?

**Example 6:**

Valerie walks 3m N, 5m S, 7m E, 4m N, and 2m W. What is Valerie’s displacement?