**Physics Day 1**

Physics:

Branches of Physics:

 1.

a.

 2.

Unit Conversions and the Factor-Label Method

**Distance vs Displacement**

Distance:

Displacement:

Scalar quantity:

Vector quantity:

**Wall Ball Bounce**

Draw set-up:

Trial 1: Distance =

 Displacement =

Trial 2: Distance =

 Displacement =

Trial 3: Distance =

 Displacement =

**Displacement Practice**

positive to the right and negative to the left



Distance travelled for A =

Displacement of A =

Distance travelled for B =

Displacement of B =

Distance travelled for C =

Displacement of C =

Distance travelled for D =

Displacement of D =

**2D Wind – up Toy**

Trace the path of the toy from a starting point. Measure distance and displacement.

Half a wind N and half a wind W: Distance =

 Displacement =

Half a wind NW: Distance =

 Displacement =

Full wind E and full wind S: Distance =

 Displacement =

For 2D displacements we can use x and y vectors or compass vectors.

Vector addition:

Draw vectors to scale on grid paper. Then you can measure the magnitude of the displacement with a ruler and the direction with a protractor.

Do the Vector Walk!