

**Work each of the following problems. SHOW ALL WORK.**

1. Classify the following measurements as vector or scalar quantities:

1.0 m = _____	2.35 m north = _____
-3.2 N = _____	4.2 s = _____
5.3 m/s <sup>2</sup> left = _____	6.8 cm <sup>2</sup> = _____
9.2 kg = _____	7.3 km, 30° NE = _____

2. Add the following vectors together using the tip-to-tail method, and determine the magnitude of the resultant.

a.  $\xrightarrow{4\text{ m}}$       $\xrightarrow{2\text{ m}}$

b.  $\xrightarrow{2\text{ m}}$       $\xrightarrow{4\text{ m}}$

c.  $\xrightarrow{4\text{ m}}$       $\xleftarrow{2\text{ m}}$

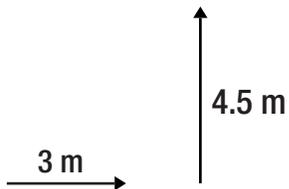
d.  $\xrightarrow{6\text{ m}}$       $\xleftarrow{3\text{ m}}$       $\xrightarrow{4\text{ m}}$

e.  $\xleftarrow{3\text{ m}}$       $\xrightarrow{4\text{ m}}$       $\xrightarrow{6\text{ m}}$

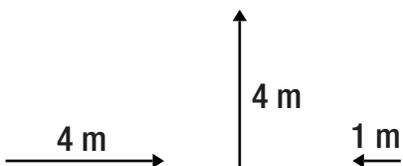
Name:

Date:

f.



g.



h.

