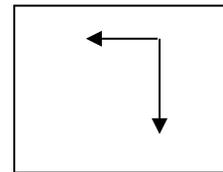Physics 112
FA – Types of Physical Quantities and Resultants (S22/17) - A

Name - _____

Part 1 – Multiple Choice

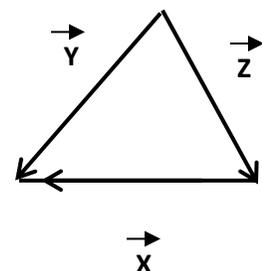Print the letter of the best answer on the line provided.

_____ 1. Which vector represents the resultant of the two displacement vectors shown in the box?

A)   B)   C)   D)

_____ 2. A scalar quantity has
A) magnitude or direction
B) only direction
C) magnitude and direction
D) only magnitude

_____ 3. The minimum resultant of two forces acting on an object will occur when the angle
between the two forces is
A) 0º
B) 45º
C) 90º
D) 180º

_____ 4. Study the diagram to the right. Which statement best describes the
relationship between **X**, **Y** and **Z**?
A) **Z** is the resultant of **X** and **Y**.
B) **Y** is the resultant of **X** and **Z**.
C) **X** is the resultant of **Y** and **Z**.
D) There is no particular relationship between **X**, **Y** and **Z**.

Part 2 – Calculating $\vec{R}$

$\mathbf{A} = 54.9$ m/s^2, S and $\mathbf{B} = 72.1$ m/s^2, E. Find their resultant. Show your work in the space below.

Physics 112
FA – Types of Physical Quantities and Resultants (S22/17) - B
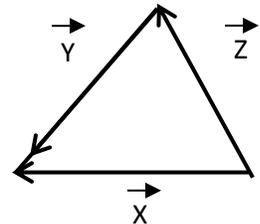
Name - _____

Part 1 – Multiple Choice

Print the letter of the best answer on the line provided.

___ 1. A vector quantity has
   A) magnitude or direction
   B) only direction
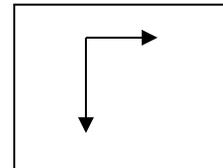   C) only magnitude
   D) magnitude and direction

___ 2 . Study the diagram to the right. Which statement best describes the
   relationship between **X**, **Y** and **Z**?
   A) **Z** is the resultant of **X** and **Y**
   B) **Y** is the resultant of **X** and **Z**
   C) **X** is the resultant of **Y** and **Z**
   D) There is no particular relationship between **X**, **Y** and **Z**.

___ 3. The maximum resultant of two forces acting on an object will occur when the angle
   between the two forces is
   A) 0º
   B) 45º
   C) 90º
   D) 180º

___ 4. Which vector represents the resultant of the two displacement vectors shown in the box?

   A)   B)   C)   D)

Part 2 – Calculating $\vec{R}$

A = 20.8 m/s, N and **B** = 35.3 m/s, W. Find their resultant. Show your work in the space below.