

Rotational Motion Worksheet

Name: _____

Date: _____

Write the equation for the following and define the term:

1) Angular displacement:

4) Tangential Velocity:

2) Angular Speed:

5) Tangential Acceleration:

3) Angular acceleration:

6) Centripetal acceleration:

Crazy Pete and Wild Bill are running around a track. Both of them are running with a velocity of 5 m/s. Using this information to answer the following questions:

Use (Bill / Pete / Same)

- a) _____: Who has the greatest angular speed?
- b) _____: Who has the greatest centripetal acceleration?
- c) _____: Who has the greatest tangential speed?
- d) _____: Who will pass through the greatest angular displacement in 5 seconds? (Who will make it the furthest around the track)



Crazy Pete and Wild Bill are at it again. This time they are trying to launch themselves to the moon. Upon being released, answer the following question:

- a) _____: Who will feel the greatest angular acceleration?
- b) _____: Who will feel the greatest angular speed?
- c) _____: Who will feel the greatest tangential velocity?
- d) _____: Who will pass through the greatest angular displacement?
- e) _____: Who will have the greatest centripetal acceleration?

