## Some Clicker Questions - \#1



What point on the orbit is the acceleration the largest?
$\begin{array}{lllll}\text { A } & \mathrm{B} & \mathrm{C} & \mathrm{D} & \mathrm{E}\end{array}$

## Some Clicker Questions - \#2



Which location in the orbit is the planet moving the fastest?
A $\quad$ B $\quad$ C $\quad$ D $\quad$ E

## Some Clicker Questions - \#3



Planet B has 20 times more mass than planet A. Which planet has a larger acceleration?

A $\quad$ B $\quad$ C) It is not possible to tell

## Some Clicker Questions - \#4

Why is an astronaut in orbit weightless?
A). Because they are always in free fall, but constantly miss the Earth.
B). Because gravity from the Earth and moon cancels.
C). Because gravity from the Earth and Sun cancels.
D). Because there is no gravity in space.

## MICHIGAN STATE <br> U N I V ER S I T Y

## Some Clicker Questions - \#5

$$
F=\frac{G m_{1} m_{2}}{r^{2}} ; G=6.673 E-11^{N m^{2}} / \mathrm{kg}^{2}
$$



What distance would we use for r in Newton's formula for gravity? Note you must use kg and m for the formula to work.
$\begin{array}{ll}\text { A). } 1000 \mathrm{~m} & \text { B). } 1000 \mathrm{~km} \mathrm{C}) .1111 .0 \mathrm{~km} \text { D). 1111.E3 }\end{array}$ m E). 1110.E6 m

## MICHIGAN STATE <br> U N IVERS I T Y

## Some Clicker Questions - \#6

Jane is running east with a speed of $2 \mathrm{~m} / \mathrm{s}$. When she gets directly south of Susan, she throws the ball at $2 \mathrm{~m} / \mathrm{s}$. What directions should she throw the ball?
A
B

$\dagger \mathrm{D}$



