Chapter 6 Section 2 MA1032 Data, Functions & Graphs

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## Combining the Trig and Periodic Functions

## The ferris wheel problem in light of angles.

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A ferris wheel of diameter 50 meters completes one revolution every 2 minutes. When you are at the lowest point on the wheel, you are still 5 meters off the ground.

- Sketch a circle and label the points on the circle that correspond to each 15 seconds that pass.
- 2 Make a table with the estimated height h(t) for t = 0, 15, 30, ..., 120 seconds.
- 3 Sketch a graph of the height above the ground as a function of time for one complete revolution (starting from the lowest point).



• 
$$x = r \cos \theta$$
  
•  $y = r \sin \theta$ 



- Circular Motion
- Trig & Circular Motion
- Unit Circle

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