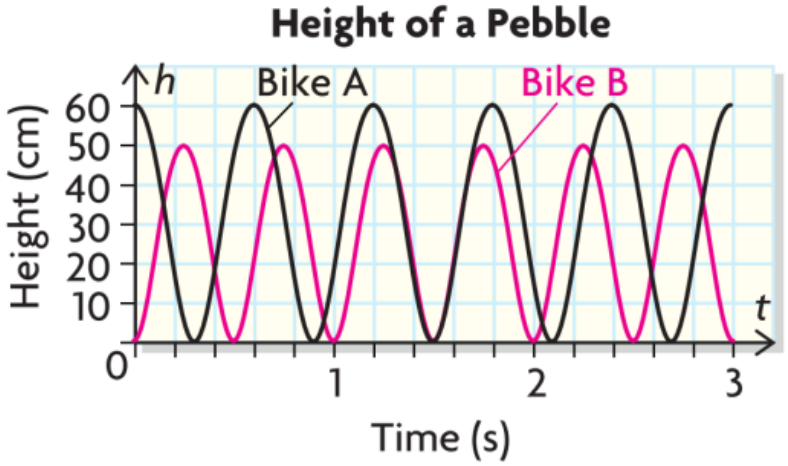
Interpreting Sinusoidal Functions



Allan (Bike A) and Brian (Bike B) were out for a bike ride.
Each of them got a pebble stuck in their tire.

The curves in the graph above show the height of the pebble above the ground over time.

1. What is the diameter/radius of Allan's wheel?

2. What is the diameter/radius of Brian's wheel?

3. How high off the ground is the axle of Allan's wheel?

4. How high off the ground is the axle of Brian's wheel?

5. How long does it take Allan's wheel to complete one full revolution?

6. How long does it take Brian's wheel to complete one full revolution?

7. How far does Allan's bike travel after one rotation of the wheel?

8. How far does Brian's bike travel after one rotation of the wheel?

9. Who is travelling at a faster speed?

10. Revisit questions 1-6 and identify which unit term each question is addressing.

Below are graphs describing the motion of two different table saws.
What information can you gather from the graphs?