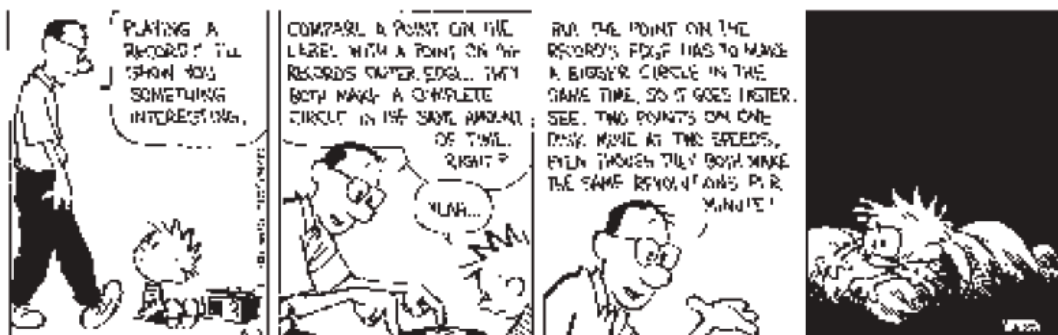


Practice 6.2.1

- 8 A circle of radius r centimeters has a circumference of $2\pi r$ centimeters.
- Suppose a point A on the circle rotates through an angle of p radians. What is the length of the arc traversed by the point?
 - Suppose a point A on the circle rotates at p radians per minute. Find the linear velocity of the point.
 - Suppose a circle with radius 10 cm has an angular velocity of 80 radians per second. Find the linear velocity of a point A on the circle.
 - Suppose a point on a circle with radius 10 cm has linear velocity of 30π cm per second. Find the angular velocity of the point.
 - Explain how to convert an angular velocity v (in radians per second) for a circle of radius r centimeters into the linear velocity of a point on the circle.

- 21 Read the cartoon below. Using mathematical ideas that you developed in Investigation 1, write a paragraph explaining to Calvin how two points on a record can move at two different speeds.



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