Quiz 13 — MA161 — October 19, 2018
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1. (6 points) Water is dripping onto a table at a rate of 5 cm^3/hour. It forms a circular puddle, with a constant height of $\frac{1}{2}$ cm. Draw a sketch of the puddle, labeling the height and the radius r.

2. (14 points) How fast is the radius of the puddle increasing when the puddle has a radius of 10 centimeters? Answer in centimeters/hour.

   [*Hint:* the volume of a cylinder is $\pi r^2 h$, where h is the height and r is the radius.]