

Quiz 13 Key — MA161 — October 19, 2018

Alden Bradford

Min	Mean	Max
1	17	20

1. (6 points) Water is dripping onto a table at a rate of $5 \text{ cm}^3/\text{hour}$. 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.]

$1/2\pi$
