

NAME: \_\_\_\_\_ Score \_\_\_\_\_/10

Please **print** your name**SHOW ALL YOUR WORK IN A NEAT AND ORGANIZED FASHION**

1. What is the area of a trapezoid with height 5 and bases 6 and 4?\_\_\_\_\_.
2. What is the rule for the function  $f \circ g$  if  $f(x) = \log(x)$  and  $g(x) = 3x + 9$  ?
3. Find two simpler functions  $f$  and  $g$  so that the function  $h$  whose rule is  $h(x) = (2x^5 + x^2 - 4)^5$  may be written as the composition  $f \circ g$  of the simpler functions.
4. Find two simpler functions  $f$  and  $g$  so that the function  $h$  whose rule is  $h(x) = \exp\left(\frac{x^3 - 8}{x^2 + 5}\right)$  may be written as the composition  $f \circ g$  of the simpler functions.