# Quiz 7

This is a two-stage quiz. During the first stage, use your knowledge & calculator to take this quiz. You have 15 min. In the second stage, you are now welcome to use your books, notes, and students in the class to retake the same quiz. You have 15 min. to write one solution (with everyone's name on it!) to be turned in for the group. Show your work as you would for a colleague. Partial credit requires reasonable support.

1. [3] Suppose you just drilled a $\frac{3}{8}$-inch hole but the hole needs to be the next size up. The set of drill pits is measured in sixteenths of an inch. What size drill should you use?

2. [3] A book editor wants to include the picture of a special swan species that is 2 feet tall at a scale of $\frac{1}{32}$. What will the height of the photo be?

3. [3] Leave answers in factored form and as *reduced* fractions.No credit will be given for non-reduced answers or mixed numbers. Assume all letters are real numbers and that no combination of symbols equal zero in the denominator.

$$\frac{1}{5} \times \frac{5}{3} \qquad \frac{1}{a} - \frac{2}{a+1} \qquad \frac{2}{a^2} + \frac{4}{3a}$$

4. [1] Evaluate the following work. If it is correct briefly describe why. If it is wrong, indicate where the mistake was made.

$$\frac{3a + a^2}{3a} = \frac{a + a^2}{a} = 1 + a$$