PROBLEMS: Show all work and circle your answer for full credit. Do your work in a neat and orderly manner such that we can follow your methods. Carry all answers to 2 decimal places (for example, 2.43 or 1.70). Units must be included with your answer. Circle your answer. Use 30 days per month.

1. (5 points) A group of steers having an average weight of 700 lb was put in the feedlot on May 1. On August 1, they weighed 960 lb. You expect these steers to be ready for slaughter when they weigh 1,200 lb. Based on their performance so far, how many more days will they be in the feedlot?

\[
\frac{940 - 700}{260 \text{ lb gain}} = \frac{260 \text{ lb gain}}{90 \text{ days}} = 2.89 \text{ lb gain/day}
\]

\[
\frac{1200 - 700}{960 - 700} = \frac{500 \text{ lb gain total}}{2.89 \text{ lb gain/day}} = 173 \text{ days total} - 90 \text{ days so far} = 83 \text{ days more}
\]

2. (3 pts) An Angus calf weighed 80 lb when it was born in January 15, 670 lb when it was weaned on August 15, and 1,200 lb when it went to slaughter the following February 15. What was its ADG up to the time it was weaned?

\[
\frac{670 - 80}{590 \text{ lb gain}} = \frac{590 \text{ lb gain}}{210 \text{ days}} = 2.81 \text{ lb gain/day}
\]

Jan 15 - Aug 15 = 7 mos. = 210 days

3. (5 pts) Approximately how many pounds of meat products (retail) would you expect from a 230-lb live hog? Show all work, and label all numbers used indicating how you got your answer.

\[
230 \text{ lb} \times 0.7 \text{ dressing} = 161 \text{ lb carcass} - 3 \text{ stop here}
\]

\[
\times 0.8 \text{ yield} = 128.8 \text{ lb meat products}
\]

4. (3 points) 40-lb feeder pigs were purchased for $80/cwt and sold later for $46/cwt when they reached market weight (230 lb). Total costs were calculated to be $110 per pig. What was the margin?

\[
\frac{\$46\text{/cwt} - \$80\text{/cwt}}{40\text{ lb}} = \$34 \text{ negative margin}
\]

Bonus