THIS LITTLE PIGGY IS WARM

Piglet Comfort Zones Answer Guide

The average piglet nurses for 24 seconds every 52 minutes, so they grow quite quickly. Within its first day, a piglet chooses its permanent nipple. Nipples toward the rear of the sow produce less milk than do those toward the front. The numbering system for nipples starts with the front-most nipple.

The table gives data about a litter of 14 piglets. Compute the weight gain of each piglet after 5 weeks. Then, compute the average weight gain. Fill in the table below with your answers.

Piglet Number	Birth Weight (kg)	5-Week Weight (kg)	Nipple Number	Growth in 5 Weeks (kg)
1	1.41	10.7	1	9.29
2	1.29	9.7	2	8.41
3	1.31	9.2	3	7.89
4	1.32	8.8	4	7.48
5	1.34	8.7	5	7.36
6	1.31	8.5	6	7.19
7	1.25	8.2	rear	6.95
8	1.41	10.7	1	9.29
9	1.29	9.7	2	8.41
10	1.31	9.2	3	7.89
11	1.32	8.8	4	7.48
12	1.34	8.7	5	7.36
13	1.31	8.5	6	7.19
14	1.25	8.2	rear	6.95
Average 5-Week Weight Gain				7.80

1. What conclusions can you draw about the relationship between birth weight, 5-week weight gain, and nipple number?

The smallest piglets had the least desirable nipples and grew the least.

2. What are the nose coordinates and 5-week weight gain of the piglet lying entirely in a 96°F zone?

nose coordinates: (14, 10)

5-week weight gain: 6.95

3. What are the nose coordinates and 5-week weight gain of the piglet lying entirely in a 94°F zone?

nose coordinates: (4, –14)

5-week weight gain: 9.29

4. What are the nose coordinates and 5-week weight gain of piglets partially in a 96°F zone?

Coordinates	5-Week Weight Gain
(–6, 10)	7.19
(10, 9)	6.95
(14, –7)	7.19

5. What are the nose coordinates and 5-week weight gain of piglets partially in a 94°F zone?

Coordinates	5-Week Weight Gain
(–5, –10)	9.29
(7, –10)	8.41

6. Explain the relationship between birth weight and preferred heat zone.

Piglets with lower birth weight choose warmer temperatures. Larger piglets prefer slightly cooler zones.

7. Piglets need space. At birth, each piglet needs an area equal to $\frac{1}{12}$ of a square foot. At 5 weeks, a piglet needs an area equal to $\frac{1}{4}$ of a square foot. A 5-week-old piglet requires a rectangular area that is $\frac{1}{3}$ of a foot (4 inches) wide. What should be the length of the rectangular area?

$\frac{1}{4}$ divided by $\frac{1}{3}$. Invert and multiply.

$\frac{1}{4} \times \frac{3}{1} = \frac{3}{4}$ foot long (9 inches)

8. A pork farm produces 1,200 litters per year with a 9% piglet loss. The average size of a litter is 12 piglets. How many piglets does the farm produce in a year? (To find 9%, multiply by 0.09.)

12 x 1,200 = 14,400
14,400 x 0.09 = 1296
14,400 – 1296 = 13,104

9. The new mat drops the loss to 7%. How many more piglets will be produced using the new mat?

12 x 1,200 = 14,400
14,400 x .02 = 288
(Students may also find 7% and subtract.)

