PSSA Open Ended Prep – Linear Equations

Please read the given situation carefully. Then, answer each question that follows. If you are asked to EXPLAIN something, please do so using COMPLETE SENTENCES!

Situation:

The growth of an animal on the planet "Nebugrapher" can be tracked using the equation, $y = 5.4x + 34$, where "x" represents the number of years and "y" represents the weight in pounds.

The growth of a person on the planet "Nebugrapher" can be tracked using the equation, $y = 12x + 8.5$, where "x" represents the number of years and "y" represents the weight in pounds.

Part A)   How much does the animal weigh at birth?

Part B)   How much does the animal weigh at 15 years of age? **Show all work.**

Part C)   At what age will the person weigh 188.5 pounds? **Show all work.**

PSSA Open Ended Prep – Linear Equations

Part D)   Who grows at a faster rate...the animal or the person?
EXPLAIN your answer.

Part E)   After approximately how many years will the weight of the
animal be the same as the weight of the person? **Show all
work**. **EXPLAIN** what you did and why.

Hint: Use a calculator and make a table!!