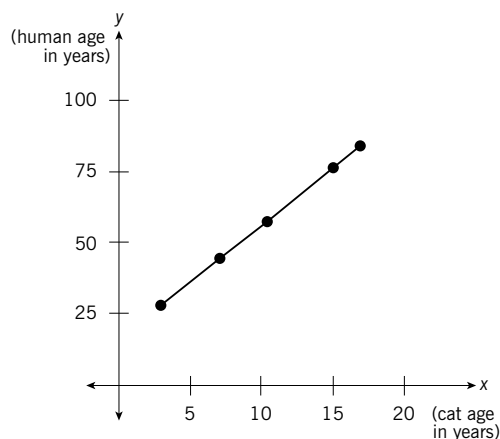


Cat Age

James Metz

SOLUTIONS

1.



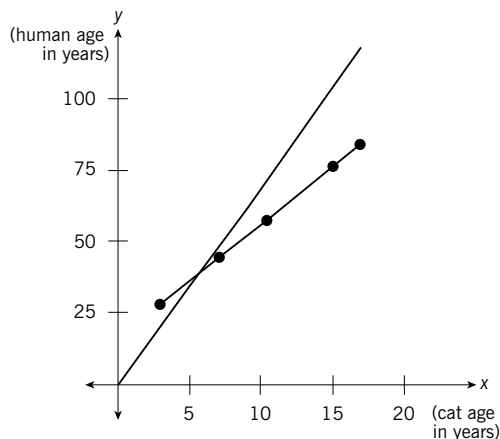
2. The formula is $y = 4x + 16$.

3. a. Using $y = 4x + 16$, when $x = 5$, $y = 36$. The human age equivalent is 36 years.

When $y = 50$, $x = 8.5$. The cat age equivalent is $8 \frac{1}{2}$ years.

4. a. $y = 7x$

b.



c. Solving $7x = 4x + 16$, $x = 16/3$, so the rule works when the cat is $5 \frac{1}{3}$ years old, or by inspecting the graph, about 5 years old.

5. a. $24 - 15 = 9$, so 9 human years.

b. The formula $y = 9x + 6$ is a close approximation.

c. It is not the same equation as for an older cat.

REFERENCE

American Animal Hospital Association (AAHA). 2015. “2010 AAFP/AAHA Feline Life Stage Guidelines.” <https://www.aahanet.org/Library/FelineLife.aspx>

EXTENSIONS

1. At the website <http://www.france-property-and-information.com/dog-years-to-human-years-age.htm>, this statement is made: “It is often said that people live 7 times as long as dogs so each year of a dogs life is equal to 7 years of a humans life. This is inaccurate for several reasons.” Visit the website and see if you can determine a formula for converting dog years to human years for the 3 sizes of dogs.

2. At the website <http://www.onlineconversion.com/dog-years.htm>, this claim is made: “The formula is: 10.5 dog years per human year for the first 2 years, then 4 dog years per human year for each year after.” Does this hold true for all sizes of dogs?