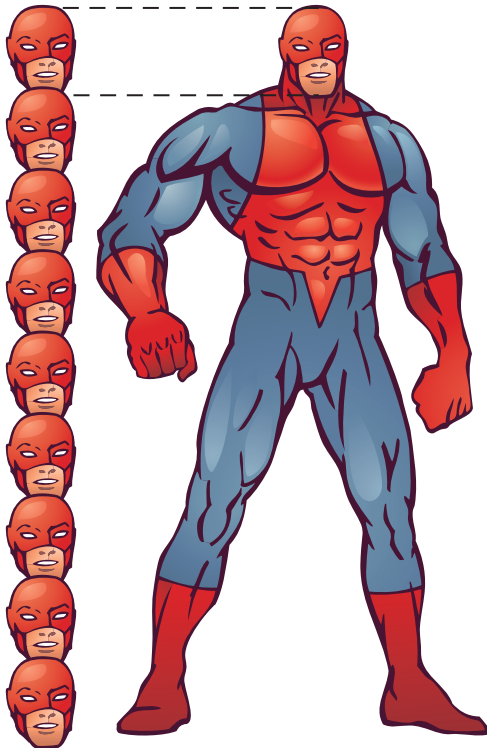


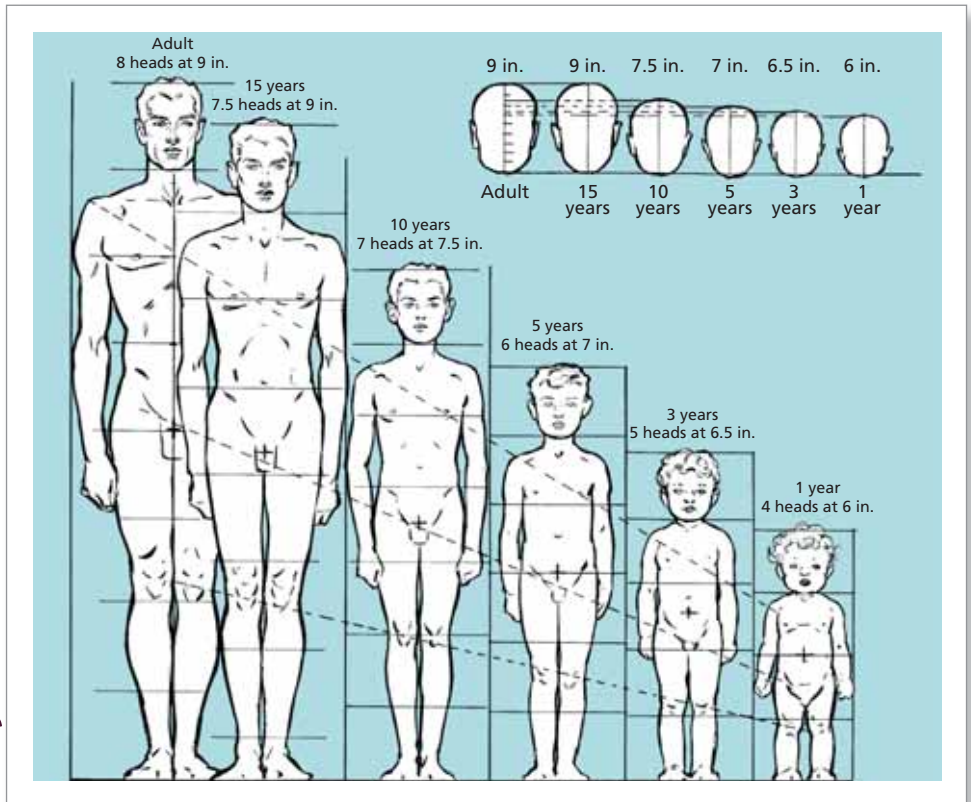
EXAMPLE 6 Recognizing a Proportional Pattern

Is the following statement true? Explain your reasoning.

As a human grows, its skull height is proportional to its total height.



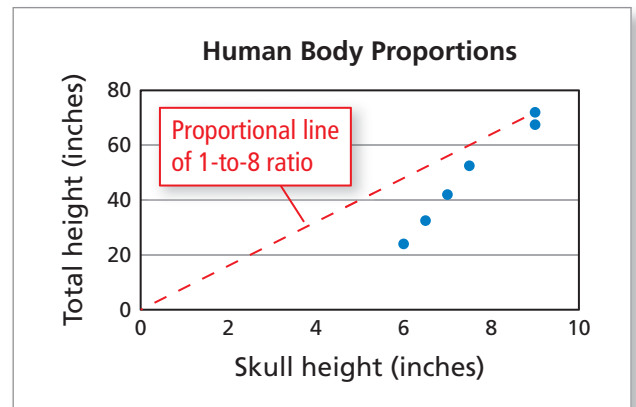
Most adult humans are between 6.5 and 8 heads tall. Comic action heroes, however, are often 9 heads tall.



SOLUTION

This is *not* true of humans. A baby’s skull height is about one-fourth of its total height. An adult’s skull height is only about one-eighth of its total height.

In the graph, notice that the total height is not a constant multiple of the skull height.



✓ Checkpoint

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Baby reptiles are miniature versions of the adults. So, for reptiles, it is true that “as a reptile grows, its skull length is proportional to its total length.” Some horned lizards can grow up to a length of 8 inches. Use the photo to estimate the ratio of the lizard’s skull length to its total length.