

Leonardo Quinn - Act II - Using published art ratios

When drawing people, artists find it useful to use certain proportions that, on average, are generally true for the human body. Leonardo da Vinci's drew the picture above inspired by Marcus Vitruvius Pollio, commonly known as Vitruvius, a Roman architect and author (born around 80 BC) who was known for his writings about the human body and its perfect proportions.

Da Vinci has shown the man's body surrounded by a square that shows his height and arm span to be equal lengths. In the text above and below the drawing, da Vinci listed consistent ratios found in the human body. The following is part of what he said.

"From the elbow to the tip of the hand will be a fifth part of a man. The whole hand will be a tenth part of the man"

Many artists think of the body's height as proportional to its head's height. An adult is supposed to be about 7.5 heads tall.

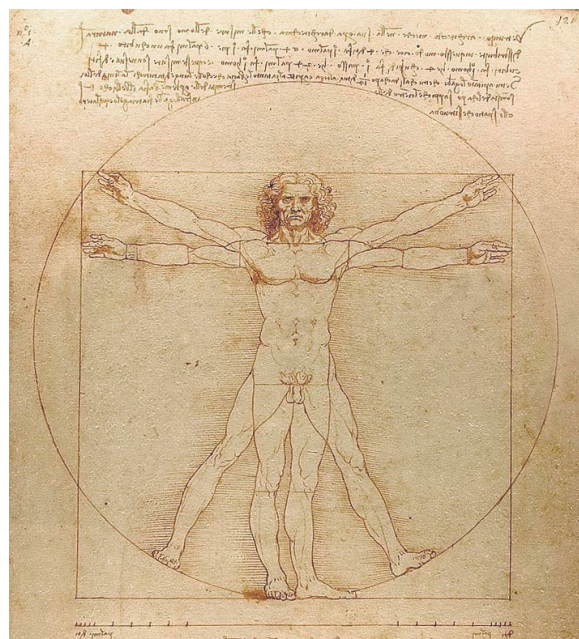
Actually, body ratios change as people age. An infant has a very large head in comparison to his body length. An infant's height is generally about 4 heads tall. A 6-year old is about as tall as 6 times the height of his head. A 12-year old is about 6.5 heads tall.

On the right is a picture of Elizabeth Taylor, a famous actress who started acting when she was a young girl. When she was 11 years old she starred in the movie *National Velvet*. We've used her picture from that movie and marked the picture with horizontal lines that repeat the size of her head.

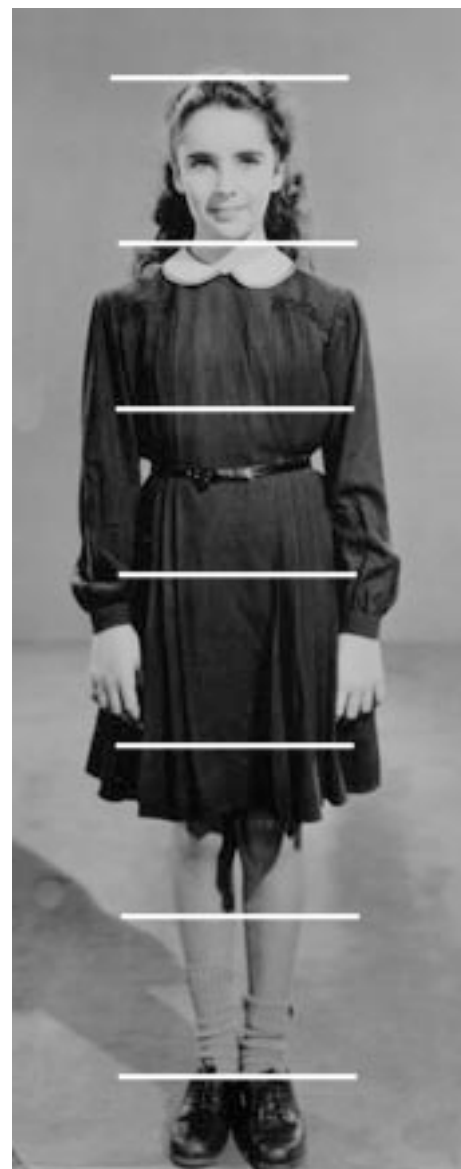
3. How many heads tall does she seem to be?
4. Can you tell how many heads tall her hands are?
5. How could you use those proportions to judge how tall a child with a certain size hands must be

In order to measure the size of Lorenzo Quinn's hands it might be helpful to know the height of one floor of the hotel. In Italy the size of one story of a hotel (from floor to the next story's floor) is about 3.1 meters.

6. Use this information to decide the size of one of those giant hands.
7. Now try to estimate the height of the child that would have hands the size of Lorenzo Quinn's sculpture.



Leonardo da Vinci's Vitruvian man



Source: <https://www.cntraveler.com/story/new-lorenzo-quinn-sculpture-in-venice-highlights-the-threat-of-climate-change>
<https://www.scientificamerican.com/article/human-body-ratios/>
<https://en.wikipedia.org/wiki/Vitruvius>
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