



# Humpty Dumpty



Measures a Wall

By Mark Fisher

Once upon a time, in a far away land, there was a large kingdom with a great and powerful king.

The king felt a great responsibility to keep his citizens safe, so he built a wall around his entire kingdom. The wall was so high that no one could climb over it.

“I’m keeping my people safe,” said the king. “There are bandits outside my kingdom, and the wall keeps them out.”

There were some people who had friends that lived in other kingdoms. They wanted to visit their friends, but they had to get permission from the king.

“I can’t open the gate,” said the king. “If I let you leave the kingdom, you won’t be safe. There are bandits out there who will steal from you!”

So the king would not let anybody leave the kingdom for any reason. And so it remained for many years.





When the king was an old man with white hair and a long beard, he had trouble remembering many things. He called his advisor one day and said, “I’ve been king for many long years. I’ve done many things for my people and kept them safe from the outside world. I have had time to reflect on my kingship, and I have one regret.”

The king’s advisor looked startled. “What would the king regret?” he wondered.

“I am old, and one day I will no longer be around to protect my people. By keeping them safe from the outside world, there is no one left who knows what it is I am protecting them from. When I am gone, the people will not know how to protect themselves!”

“What are you saying?” asked the advisor.

The king replied, “I will no longer keep anyone from leaving the kingdom, if they choose to leave.”

That day, the king sent out an order to open the gate. But when the king’s guards went to open the gate, it wouldn’t budge. The gate had rusted shut because it hadn’t been used for so long.

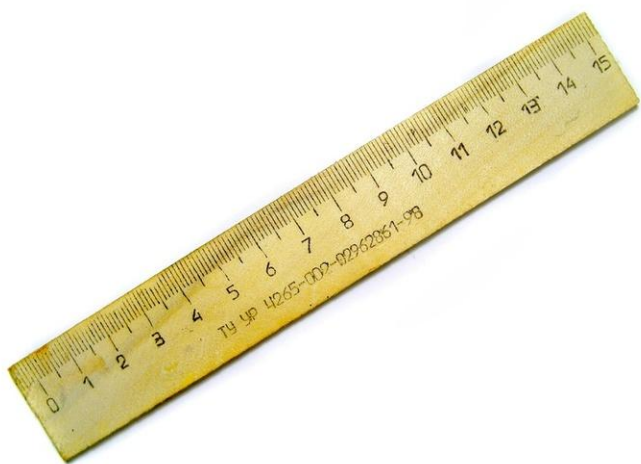
“Oh, no!” said the king. “No one will ever be able to leave the kingdom ever again.”

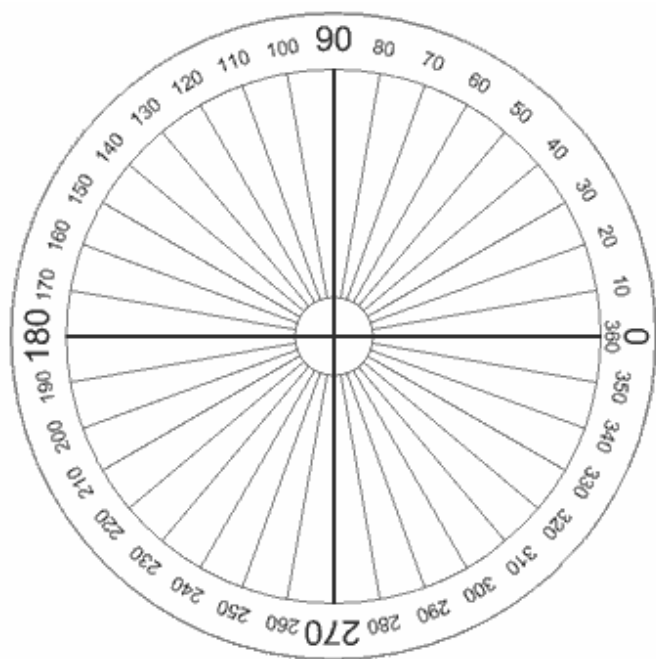
All the people were sad because they wanted to see the world outside the kingdom’s wall.

One day, a man named Humpty Dumpty decided to speak with the king. “If Your Highness will tell me how high the wall is, I can build a ladder so people can leave.”

The king thought this was a good idea, but sadly he could not remember how high the wall was. “I am old, Mr Dumpty, and my memory is not what it once was. I cannot recall how high the wall is.”

So Humpty searched the whole kingdom for a ruler to measure the height of the wall. But he could not find a ruler long enough anywhere. Humpty knew there had to be a way to measure the height of the wall, so he went and thought about it for a while.





The next day, Humpty had an idea and went to share it with the king.

“Please explain your idea, Mr Dumpty,” the king said eagerly.  
And Humpty Dumpty told the king his idea:

“Your Majesty knows that a circle is divided into 360 degrees.”  
Humpty drew a picture for the king.

“Yes, Mr Dumpty, everyone knows that!” The king did not see what this had to do with the height of the wall. Humpty continued.

“Well, Your Highness, this morning I used the longest measuring stick I could find, and measured 10 metres away from the base of the wall.”

The king still did not see what this had to do with the height of the wall.

“As I stood 10 metres away from the base of the wall,” Humpty said, “I measured the angle between where I stood and the top of the wall. The angle was 60 degrees. I also measured the angle between the wall and the ground to be 90 degrees.”



The king still could not see what this had to do with the height of the wall, but Humpty continued his story.

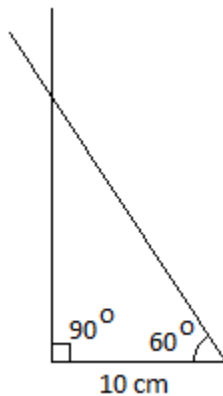
“I used this information to draw a picture.”

The king thought drawing a picture was a silly idea, but he let Humpty continue.

“I used a ruler and on my piece of paper let 1 centimetre represent 1 metre in real life. So, the distance from the wall to where I stood was drawn to be 10 centimetres.”

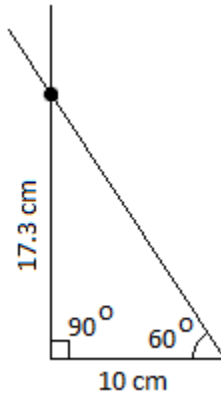
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10 cm

“I measured the angles on the picture and drew lines extending outwards.”



“The point where the lines crossed would be where the top of the wall was.”

The king was beginning to understand what Humpty was talking about, and let him continue.



“I measured the line on the picture to be 17.3 centimetres. Since 1 centimetre in my picture represents 1 metre in real life, it means the wall is 17.3 metres high.”

“Mr Dumpty, you are a genius!” shouted the king. He was extremely excited. So the king ordered that a ladder be built high enough for a 17.3 metre wall, the height which Humpty Dumpty found.

The ladder was built, and Humpty Dumpty was the first to climb it to the top of the wall. As he sat on the wall, he looked out and saw the rest of the world for the first time.

From then on, everyone was able to come and go from the kingdom as they pleased.

