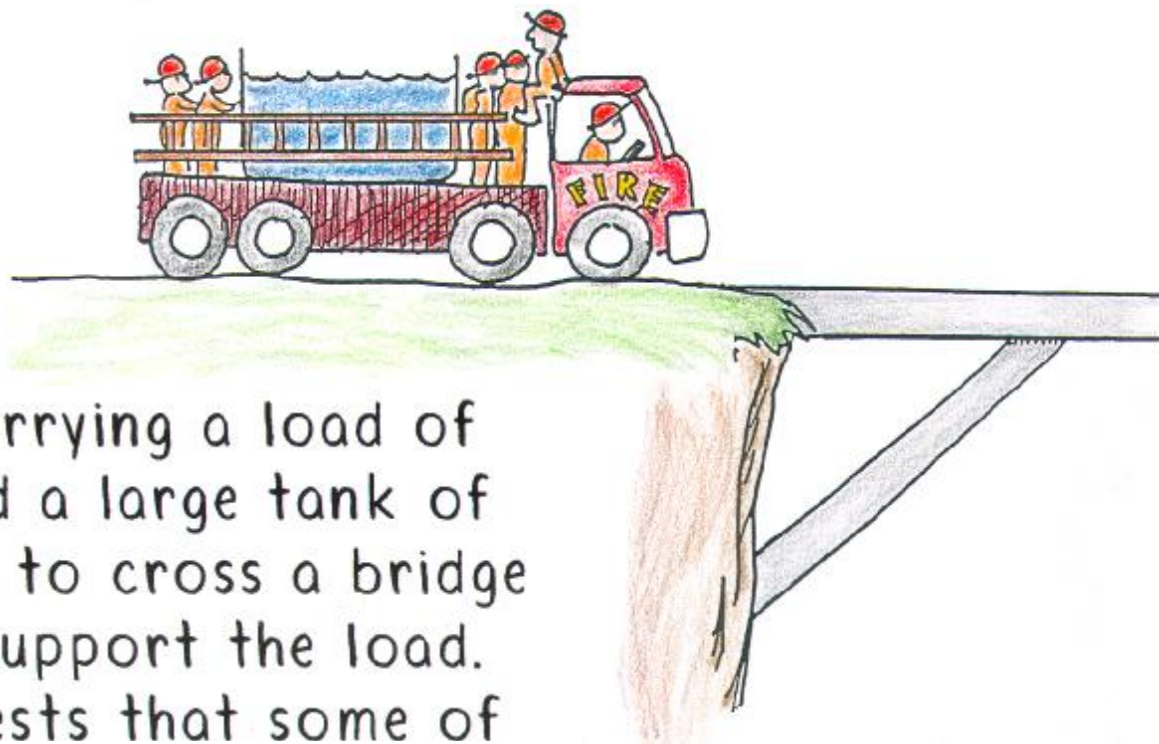


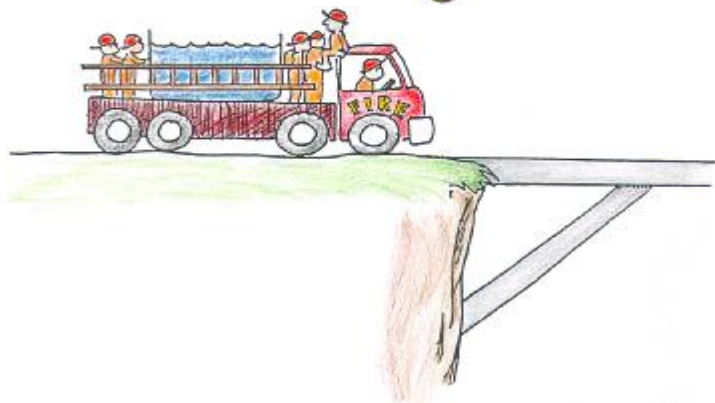
NEXT-TIME QUESTION



A fire truck carrying a load of firefighters and a large tank of water is about to cross a bridge that may not support the load. The chief suggests that some of the people aboard get into the tank so the load will be less.

Is this a good idea or a poor idea?
Explain your answer.

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Is this a good idea or a poor idea? Explain your answer.

Answers:

This is a poor idea because the weight of the load doesn't change when people float in the water tank. The load the bridge supports will still be the weight of the truck + people + tank + water.

The weights of the floating people are communicated to the bottom of the tank by the extra depth of water that results. So whether inside or outside the tank, their weights contribute to the load.

Weigh a pan of water on a scale. Put an apple in the water and the scale reading increases by the weight of the apple – whether or not the apple floats.

