

Two teams of 5 people pull on opposite ends of a rope in a “Tug-of-War.” Both teams are equally matched, so nobody moves. Call the tension in the rope T_1 .

Now they tie the rope to a sturdy tree, and all 10 people pull on the rope, each just as hard as before. Call the tension in the rope T_2 .

What can you say about the tension in the rope for the two cases?

1. $T_1 > T_2$
2. $T_1 = T_2$
3. $T_1 < T_2$
4. you cannot tell from the information given