Mathematics Whiteboard Competition

January 28, 2019

Solutions are due February 4, 2019, 5:00 p.m.

See the yellow Math Whiteboard Challenge posters for more details.

Problem 1:

“Brothers and sisters I have none, but that man’s father is my father’s son.”

Who is that man? Do you think this is a math problem? Why?

Problem 2:

Gilbert owns a pasture in which the grass grows at a constant rate up to a maximum uniform depth. Gilbert also owns a cow, a horse, and a sheep that all graze in the pasture. Beginning with a pasture full of grass, the grass can feed all three animals for 20 days. It feeds the cow and the horse alone for 25 days, the cow and the sheep alone for 33½ days, and the horse and the sheep alone for 50 days. How long would the grass feed the cow alone? The horse alone? The sheep alone?