



Mystical Math Episode 4 Problems

1. There are twelve stalls in the unicorn stables. The royal siblings only see three unicorns. How many more unicorns would it take to fill all the stables?
2. The single wig costs 20 coins. This week, the wigmaker has sold two wigs. Twenty coins plus twenty coins. How many coins has the wigmaker earned this week?
3. The wigmaker normally gives the unicorns four carrots and four apples for a meal. But now, the wigmaker gives the unicorns *half* their normal meal. How many apples and carrots do the unicorns get now?
4. Unicorns often have a big appetite. If they could choose, the unicorns would eat three times their normal meal of four apples and four carrots. How many apples and carrots would each unicorn eat?

If twelve of the unicorns were there, how many carrots and apples would they all eat at each meal?

If they eat two meals a day, how many carrots and apples would the unicorns eat every day?



5. Trei's grappling hook has a cord of twenty-five feet. If the siblings stand in one place and launch the grappling hook outward, turning at regular angles, they'll make a circle of bait. What length would the radius of the circle be? What about the diameter of the circle?

6. Unicorns, like horses, have several different speeds. Walking, at about 5mph. Trotting, at about 10mph. Canter, at about 15mph. And a full gallop, which is usually about 30mph but could be as much as 50! What speed do you think the unicorns would go in a forest, with things in their way? Walk, trot, canter, or gallop?

7. The average human, running very vigorously, might run as fast as 12mph. Might. Would the siblings be able to outrun these unicorns in the forest, if they needed to? Who would have an easier time going fast in the forest—the royal siblings, or the unicorns?

8. Unicorns like their manes to be at least 18 inches long. The wigmaker cut their manes down to 6 inches. How many inches do the manes need to grow to make the unicorns happy?

Their magical manes can grow half an inch a day. How many days would it take for the manes to grow back from 6 inches to 18 inches?