Mystical Math Episode 6 Problems

1. The baby unicorn could be up to three miles away. The cartographer just offered a map that shows a one mile wide area of the town. Will this map help the siblings?

2. The baby unicorn could be up to three miles away. The cartographer has offered a map that shows a twenty mile wide area around the town. Will this map help the siblings? Why or why not? What distance do you think a helpful map would cover?

3. Unicorns can send out a magic pulse that can be felt by other unicorns. When they're babies, that pulse can be felt up to three miles away. As teenager unicorns, they can pulse magic twice as far as babies. Three plus three. How far can teenager unicorns send a magic pulse? Adult unicorns can send a magic pulse five times as far as baby unicorns. Three miles…times five. In other words, three fives. How far can adult unicorns send a magic pulse?

4. The map has a scale. Two inches equal one mile. If the map shows a six mile wide area, how many inches long is the map?

5. The siblings drew a three-mile circle on the map to narrow down what they are searching for. How could the siblings use the scale of the map to draw a three mile circle?

6. Quatrina made a sparkle scale to compare the average sparkles. To average, you add up all the numbers in a group, then divide the answer by how many things are in the group. Quatrina looks at three unicorn hairs. On one, there are 5 sparkles. On the next, there are 7 sparkles. And on the last, there are 9 sparkles. Add those numbers together. 5 plus 7 plus 9. Now, since there were three hairs, you divide that answer by three. That gives the average number of sparkles on the unicorn hairs.

7. If only every other rope is tied to the baby unicorn, then how many ropes are actually on the baby out of twenty-two ropes?

8. When the siblings were in town, they were six miles from Lizard Gorge. They traveled two miles out to the swamp in the direction of Lizard Gorge. How far are the siblings now from Lizard Gorge?

9. When you want to know an average, you get a more accurate number with more things to add. If Quatrina wanted a more accurate average, she could have added the number from six hairs instead of just three. What is the average number of sparkles if the six hairs have 5, 6, 5, 8, 9, and 7 sparkles? 5 plus 6 plus 5 plus 8 plus 9 plus 7. To average, divide the answer by six!