**Lower Elementary:**

*Question:* John is older than Michael. Wendy is older than John. If Michael is 3 years old and Wendy is 12 years old, could John be 120 months old?

**Upper Elementary:**

*Question:* A fairy can fly 16 kilometres per hour. If the fairy leaves for Neverland at 8:03 pm and gets there at 7:33 am, then how far away is Neverland?

**Middle School:**

*Question:* Wendy and the Lost Boys are taking turns reading each other a bedtime story. Wendy reads 50% of the story. Tootles, Nibs, Slightly, and Curly each read 50% of the number of pages that are left on each of their turns. Finally, the twins each read 50% of the remaining pages. What percentage of the story has been read by the time it’s the twins’ turn to read?

**Algebra and Up:**

*Question:* A swimmer is 20 metres from a boat. A crocodile is 30 metres behind the swimmer. If the crocodile swims 4 metres per second and the swimmer swims 2 metres per second, will the crocodile catch the swimmer before he reaches the boat?

**Lower Elementary:**

*Question:* John is older than Michael. Wendy is older than John. If Michael is 3 years old and Wendy is 12 years old, could John be 120 months old?

*Answer:* Yes

*Solution:* There are 12 months in a year, so John must be 10 years old because 12 months 10 times is 120 months. Since 10 years is older than Michael’s 3 years and younger than Wendy’s 12 years, that means John could be 120 months old.

**Upper Elementary:**

*Question:* A fairy can fly 16 kilometres per hour. If the fairy leaves for Neverland at 8:03 pm and gets there at 7:33 am, then how far away is Neverland?

*Answer:* 184 kilometres

*Solution:* From 8:03 pm to 7:33 am is 11½ hours. So, the fairy travels a total distance of 16 × 11½ = 16 × 11 + 16 × ½ = 176 + 8 = 184 kilometres.

**Middle School:**

*Question:* Wendy and the Lost Boys are taking turns reading each other a bedtime story. Wendy reads 50% of the story. Tootles, Nibs, Slightly, and Curly each read 50% of the number of pages that are left on each of their turns. Finally, the twins each read 50% of the remaining pages. What percentage of the story has been read by the time it’s the twins’ turn to read?

*Answer:* 96.875%

*Solution:* After Wendy reads, 50% of the pages are left to read. After Tootles, 50% × 50% = 25% are left. After Nibs, 50% × 25% = 12.5% are left. After Slightly, 50% × 12.5% = 6.25% are left. After Curly, 50% × 6.25% = 3.125% are left. So, by the time it’s the twins’ turn to read, 3.125% of the pages are left, which means 100% – 3.125% = 96.875% of the story has been read.

**Algebra and Up:**

*Question:* A swimmer is 20 metres from a boat. A crocodile is 30 metres behind the swimmer. If the crocodile swims 4 metres per second and the swimmer swims 2 metres per second, will the crocodile catch the swimmer before he reaches the boat?

*Answer:* No

*Solution:* The crocodile swims 4 – 2 = 2 metres per second faster than the swimmer. So, the crocodile gets 2 metres closer to the swimmer each second. It takes the swimmer 20 metres ÷ 2 metres per second = 10 seconds to reach the boat. In that time, the crocodile gets 10 seconds × 2 metres per second = 20 metres closer to the swimmer. Since they were 30 metres apart to begin with, the crocodile does not catch the swimmer.