**Lower Elementary:**

*Question:* Liza sells 2 bunches of violets for 6 pennies. If each bunch has 6 violets, then many violets cost a penny?

**Upper Elementary:**

*Question:* Henry teaches language lessons. His most expensive lessons cost 60 pounds, and his least expensive lessons cost 1 shilling. If 20 shillings make 1 pound, then what is the range in language lesson prices? Give your answer in pounds and shillings.

**Middle School:**

*Question:* Clara, Freddy, Henry, and Liza are all sitting together on a sofa. Clara is sitting next to Henry, and Freddy is not. Clara and Freddy are both between two people, and Liza is not. Liza is to the left of Henry. From left to right, in what order are they sitting?

**Algebra and Up:**

*Question:* It’s 9:31 am and Alfred is running late for his wedding. He runs 500 yards to catch a taxi, which takes him 12 miles to the church at an average rate of 30 miles per hour. If Alfred makes it to the church exactly on time at 10:00 am, then what is his average running speed per second from 9:31 am until he leaves in the taxi?

**Lower Elementary:**

*Question:* Liza sells 2 bunches of violets for 6 pennies. If each bunch has 6 violets, then many violets cost a penny?

*Answer:* 2 violets

*Solution:* If each bunch has 6 violets, then 2 bunches have 12 violets. If Liza sells 12 violets for 6 pennies, then she sells 2 for each penny.

**Upper Elementary:**

*Question:* Henry teaches language lessons. His most expensive lessons cost 60 pounds, and his least expensive lessons cost 1 shilling. If 20 shillings make 1 pound, then what is the range in language lesson prices? Give your answer in pounds and shillings.

*Answer:* 59 pounds and 19 shillings

*Solution:* We find the range by subtracting the smallest value from the largest value. So, the range in prices is 60 pounds – 1 shilling. Since there are 20 shillings to a pound, we borrow 20 shillings from 60 pounds to set up our subtraction equation: 59 pounds and 20 shillings – 1 shilling = 59 pounds and 19 shillings.

**Middle School:**

*Question:* Clara, Freddy, Henry, and Liza are all sitting together on a sofa. Clara is sitting next to Henry, and Freddy is not. Clara and Freddy are both between two people, and Liza is not. Liza is to the left of Henry. From left to right, in what order are they sitting?

*Answer:* Liza, Freddy, Clara, Henry

*Solution:* The first pieces of information we can use to eliminate seating options are who’s in between two people and who isn’t. We know that Clara and Freddy cannot be on the ends, and Liza must be on the far left or right. Liza cannot be on the far right because she is to the left of Henry. So, since Liza must be on the far left and Clara and Freddy are in the middle, Henry must be on the far right. Since Clara is next to Henry, she must be third, which means Freddy must be second.

**Algebra and Up:**

*Question:* It’s 9:31 am and Alfred is running late for his wedding. He runs 500 yards to catch a taxi, which takes him 12 miles to the church at an average rate of 30 miles per hour. If Alfred makes it to the church exactly on time at 10:00 am, then what is his average running speed per second from 9:31 am until he leaves in the taxi?

*Answer:* 12/3 yards per second or 5 feet per second

*Solution:* The taxi travels 12 miles in 24 minutes, and 24 minutes before 10:00 am is 9:36 am, 5 minutes after he starts running. He runs 500 yards in 5 minutes, and since 5 minutes is 300 seconds, that means he runs 500 ÷ 300 = 12/3 yards per second, which is equal to 5 feet per second.