**Lower Elementary:**

*Question:* Mikey and his brothers Donnie, Raph, and Leo are comparing their heights. Leo’s height is between Raph’s and Donnie’s. If Raph is the second shortest, who is the shortest?

**Upper Elementary:**

*Question:* Three-fourths of a cannister of toxic ooze spills into a sewer. If 132½ millilitres of ooze is left inside the cannister, then how much ooze does the cannister hold in total?

**Middle School:**

*Question:* April is deciding what kind of job she should take. She’s deciding between jobs as a lab assistant (which will pay her $48.00 for 4 hours of work), a computer programmer (which will pay her $65.00 for 5 hours of work), and a reporter (which will pay her $69.00 for 6 hours of work). Which job should she take if she wants to earn the most money per hour?

**Algebra and Up:**

*Question:* A 40-centimetre pizza is cut into 6 equal slices. If 4 consecutive pieces are taken and eaten, then what is the area taken up by the remaining slices?

(Hint: Pizzas are measured by their diameters.)

**Lower Elementary:**

*Question:* Mikey and his brothers Donnie, Raph, and Leo are comparing their heights. Leo’s height is between Raph’s and Donnie’s. If Raph is the second shortest, who is the shortest?

*Answer:* Mikey

*Solution:* If Raph is the second shortest and Leo’s height is between Raph’s and Donnies, then both Leo and Donnie are taller than Raph. That means that Mikey must be the shortest.

**Upper Elementary:**

*Question:* Three-fourths of a cannister of toxic ooze spills into a sewer. If 4½ fluid ounces of ooze is left inside the cannister, then how much ooze does the cannister hold in total?

*Answer:* 18 fluid ounces

*Solution:* Since ¾ of the cannister of ooze spilled, that means that 132½ millilitres is ¼ of the total amount of ooze the cannister can hold. So, the cannister can hold 132½ × 4 = 530 millilitres in total.

**Middle School:**

*Question:* April is deciding what kind of job she should take. She’s deciding between jobs as a lab assistant (which will pay her $48.00 for 4 hours of work), a computer programmer (which will pay her $65.00 for 5 hours of work), and a reporter (which will pay her $69.00 for 6 hours of work). Which job should she take if she wants to earn the most money per hour?

*Answer:* computer programmer

*Solution:* The lab assistant job pays $48.00 ÷ 4 = $12.00 per hour. The computer programmer job pays $65.00 ÷ 5 = $13.00 per hour. The reporter job pays $69.00 ÷ 6 = $11.50 per hour. So, if April wants to earn the most money per hour, she should take the job as a computer programmer.

**Algebra and Up:**

*Question:* A 40-centimetre pizza is cut into 6 equal slices. If 4 consecutive pieces are taken and eaten, then what is the area taken up by the remaining slices?

(Hint: Pizzas are measured by their diameters.)

 *Answer:* 133⅓π square centimetres

*Solution:* Before any slices are eaten, the pizza takes up π***r***2 = 400π square centimetres. Since 4 out of 6 slices were eaten, that leaves 2 slices, so ⅓ of the pizza is left over. That means that the area taken up by the remaining two slices is ⅓ × 400π = 133⅓π square centimetres.