1. One dollar is worth 100 cents. One nickel is worth 5 cents. How many nickels are worth one dollar?

    Solution: Dividing 100 by 5 gives 20, which means that 20 times 5 cents is 100 cents. Therefore **20** nickels are worth one dollar.

2. Alice is 1 year older than Bob. Bob is 2 years older than Catherine. Alice's cat, Doodles, is 2 years old, and Catherine is 1 year older than Doodles. How old is Alice?

    Solution: Doodles is 2 years old, and Catherine is 1 year older than Doodles, so Catherine is 3 years old. Bob is 2 years older than Catherine, so he is 5. Alice is a year older than Bob, so Alice is **6**.

3. Ivan has 3 turtles. Each turtle has 4 legs. On each of the legs, there are 5 toes. How many toes are there on all of Ivan's turtles together?

    Solution: Ivan has 3 turtles, each of which has 4 legs. This means his turtles have 3x4=12 legs in total. Each leg has 5 toes, so there are 5x12=**60** toes in total.

4. How many dots are there in the following diagram?

    Solution: Each row has 5 dots, and there are 4 rows. This means the number of dots is 4x5=**20**.

5. What do you get when you add up 10 copies of the number 5? In other words, what is 5+5+5+5+5+5+5+5+5+5?

    Solution: Adding 10 copies of the number 5 is like multiplying 5 by 10, so the answer is 5x10=**50**.

6. How many odd numbers are there between 1 and 20 (including 1 and 20)?

    Solution: Every other number between 1 and 20 is odd. This means exactly half of the numbers between 1 and 20 are odd. The amount of odd numbers is therefore 20/2=**10**.

7.   In the map below, each small square is 1 kilometer by 1 kilometer. How long is the shaded path?
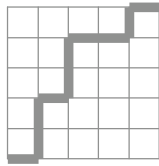
Solution: Counting the squares, we can see that the whole map is 5 kilometres by 5 kilometres. The path therefore travels 5 kilometres vertically and 5 kilometres horizontally, so the path is **10 kilometres** long.

8.   Ellen is older than Fred. Fred is younger than Gary. Gary is older than Ellen. Ellen is younger than Henry. Who is the second youngest?

Solution: Fred is younger than Ellen and Gary. Since Ellen is younger than Henry, Fred is the youngest. Ellen is younger than Gary and Henry, so **Ellen** must be second youngest.