1. Following the correct order of operations, calculate  $4 + 6 \div 2$ .

Answer: 7 \* In the mixed calculation do  $\times$  and  $\div$  before + and -.

2. How many dots are there in the diagram below?



\*  $1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 = (1 + 9) + (2 + 8) + (3 + 7) + (4 + 6) + 5 = 4 \times 10 + 5 = 45$ 

3. What is the remainder when 18118 is divided by 5?

Answer: 3 \*  $18118 \div 5 = (18110 + 8) \div 5 = 18110 \div 5 + 8 \div 5$  so answer is 3. Only the last digit needs to be checked.

4. Dan has 18 books while Emily has 10 books. How many books does Dan need to give to Emily for them to have the same number of books?

Answer: 4 books

- \*  $(18 10) \div 2 = 4$
- 5. Four friends are comparing their heights. Ben is shorter than Amy. Josh is taller than Amy. Nicole is taller than Josh. Who is the <u>second</u> tallest?

Answer: Josh is the second tallest.

- \* Order from tallest to shortest is: Nicole, Josh, Amy, and Ben.
- 6. One watermelon weighs the same as 4 peaches, and one peach weighs the same as 5 strawberries. How many strawberries weigh the same as a watermelon?

Answer: 20

\* 4 × 5 = 20

Answer: 6

\* In total there are 6 numbers and they are 3, 6, 9, 12, 15, 18. You can also get the answer when you divide 20 by 3 and delete the remainder.

8. What is the area of the grey region in the diagram below?



Answer: 60 (units squared) \*  $8 \times 8 - 2 \times 2 = 64 - 4 = 60$  (units squared).