2021 Team Up Challenge

Team Paper

> 💡 **Tips to Get Started**
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> -
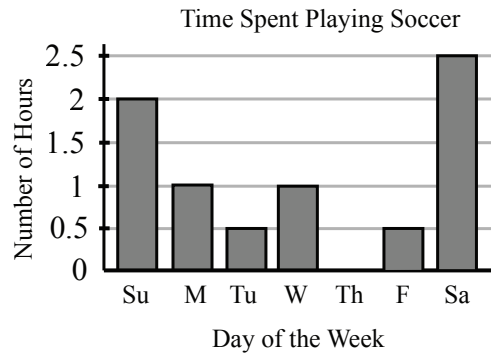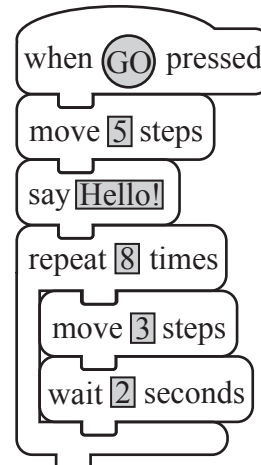>
> - The questions in this paper increase in difficulty as you move through the paper. The last few questions require some careful thought.
>
> - Each team member doesn't have to do every question. You can split the questions up, work together, or do a combination of both. Come up with a strategy that works for your team.

1. One week, Ana recorded the time she spent playing soccer on the bar graph shown. How many hours, in total, did she spend playing soccer that week?
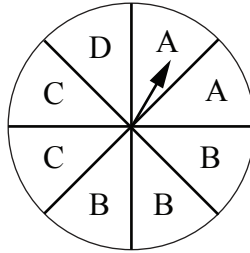

Time Spent Playing Soccer

2. A square has a perimeter of 12 cm. What is the side length of the square?

3. If the symbol $\triangle$ represents the number 5, what is the value of $\triangle \times \triangle + \triangle$?

4. Alia wrote the code shown for a character in her animation. After running the code once, how many steps did the character move?

when GO pressed
move 5 steps
say Hello!
repeat 8 times
    move 3 steps
    wait 2 seconds

5. Jeff can type 40 words per minute. How many minutes would it take to him to type a 5000 word essay?

6. A spinner is divided into 8 equal sections. The arrow is spun one time. What is the probability that the arrow will land on a section marked with the letter B?
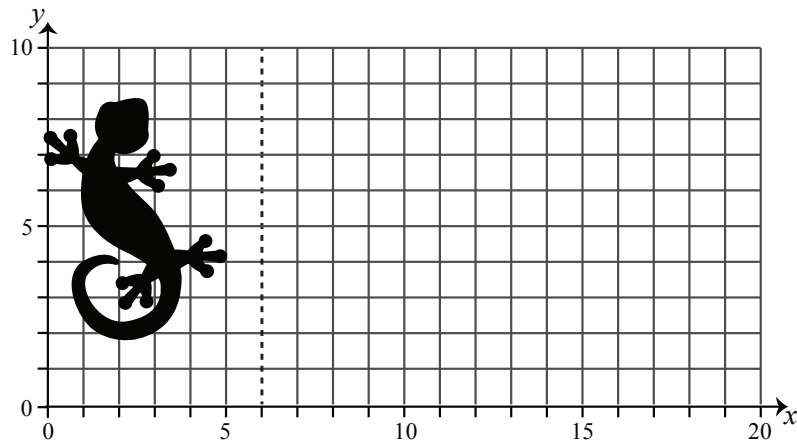

7. How many prime numbers are there between 6 and 30?

8. A triangular prism has exactly five faces and nine edges. How many vertices does a triangular prism have?

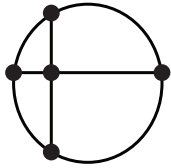9. A sequence of six shapes repeats to form the following pattern:

What is the 55th shape of the pattern?

10. A lizard silhouette is placed on a grid so that the end of its tail has the coordinates $(2, 4)$. The lizard is then reflected over the dashed vertical line through $(6, 0)$ and then translated 7 units to the right. What are the new coordinates of the end of the lizard's tail?
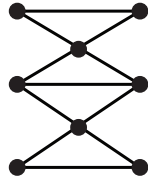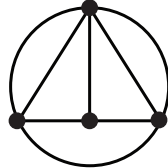
11. For which of the following five pictures is it possible to trace over every line exactly once, moving from dot to dot without lifting your pencil?
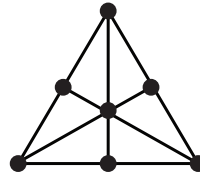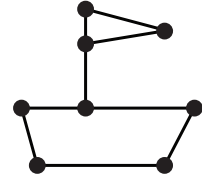
Picture A   Picture B   Picture C   Picture D   Picture E

12. In the following list of numbers, the symbol □ represents an unknown number.
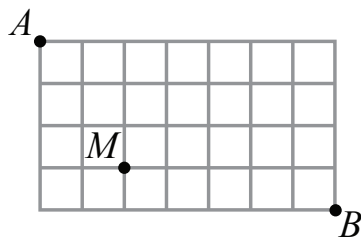
$$3, \square, 6, 5, 2, 9$$

If the median and mode of the list are equal, what is the unknown number?

13. Jonah's favourite number is a positive integer. One day, he decided to write down all of the positive integers starting at 1 and ending with his favourite number. He noticed, in doing so, that he wrote the digit 7 exactly 30 times. What is Jonah's favourite number?

14. Hans is in a room with seven other people. Each person in the room was asked how many of the other seven people they had met before. Given the responses of the other seven people, how many people in the room has Hans met before?

Person's Name	Amad	Bea	Cho	Diane	Edgar	Foster	Gene
Number of People They Met Before	5	7	4	7	3	3	7

15. In a video game, a robot is programmed to walk from A to B along the gridlines. The robot can only move right or down and must travel through the point M.

How many different paths from A to B can the robot take?

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Team Paper Answer Sheet

Team: _____

Question	Answer
1	
2	
3	
4	
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