

Blockhouse Bay Intermediate Summer Maths Challenge - QUESTION SHEET | December 2023 - January 2024

Make your summer mathematical! Complete the following daily challenges yourself or with a family member (you can't work with another student from school). Return your completed answer sheet to the office by Friday, February the 2nd. Teachers will be available to help you in the school library on Monday the 22nd of January, 9am-12pm. To earn a red star, you must get at least 80% of the questions correct.

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
25 A laptop is on sale for 30% off at a local electronics store, originally priced at \$900. How much will you pay for the laptop after the discount?	26 2 + 2 + 2 + 2 = 21 2 = 21 2 + 2 = 21 2 = 22 2 = 22	27 A train departs from a city at 9:45 AM and takes 3 ½ hours to reach its destination. What time will the train arrive?	28 How many triangles can you see?	29 What is the probability that a green marble is drawn from the bag? Express the probability as a fraction.	30 Research the Māori number system. Can you write the number three hundred and fifty six in te reo Māori?	31 If the whole rectangle represents one whole, what fraction is blue?
1 If the total is 9, what number is hidden under the splat? 9 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 $ \begin{array}{c} \\ \end{array}{} \begin{array}{\hline \\ \\ \end{array}{} \begin{array}{\hline \\ \end{array}{} \begin{array}{\hline \end{array}{} \end{array}{} \begin{array}{\hline \end{array}{} \end{array}{} \begin{array}{\hline \end{array}{} \end{array}{} \begin{array}{\hline \end{array}{} \end{array}{} \end{array}{} \begin{array}{\hline \end{array}{} \end{array}{} \begin{array}{\hline \end{array}{} \end{array}{} \begin{array}{\hline \end{array}{} \end{array}{} \begin{array}{\hline \end{array}{} \end{array}{} \end{array}{} \end{array}{} \begin{array}{\hline \end{array}{} \end{array}{} \end{array}{} \end{array}{} \begin{array}{\hline \end{array}{} \end{array}{} \end{array}{} \begin{array}{\end{array}{} \end{array}{} \end{array}{} \end{array}{} \end{array}{} \end{array}{} \end{array}{} \begin{array}{} \end{array}{} \end{array}{} \end{array}{} \end{array}{} \end{array}{} \begin{array}{} \end{array}{} \end{array}{} \end{array}{} \end{array}{} \begin{array}{} \end{array}{} \end{array}{} \end{array}{} \end{array}{} \end{array}{} \end{array}{} \end{array}{} \end{array}{} \end{array}{} \end{array}$	3 The perimeter of this rectangle is 32cm. If the length is 11 cm, what is the width? 11cm	4 At a wedding, three trapezium-shaped tables are arranged like so and are able to seat ten people. How many tables would be needed to seat 32 people in the same way (i.e. all the tables are touching)?	5 The graph below shows the number of books read by each student in Room 16 over one week. How many students are there in Room 16?	G How many children take between 0 and 19 minutes to get to school? Time children took to get to school	7 In the triangle below, the sum of the four values on each side is 17. Using each of the numbers 3-9 once only, complete the triangle.
8 Mary graduated from college at the age of 22. Fifteen years later, in 2010, she became the CEO of a successful tech company. When was Mary born?	9 In the first case, there are 3 squares. In the second case, there are 6 squares. In the third case, there are 10 squares. How many squares would be in the 4th and 5th cases?	10 A farmer has 20 metres of fencing to build a rectangular enclosure for her chickens. To provide her chickens with the most amount of space possible, what should the dimensions of the rectangular enclosure be?	11 In one hour, the minute hand will turn 360 degrees. How many degrees will the minute hand move in ten minutes?	 12 The AIMS Football team won all five of their games. The number of goals scored by the AIMS team in each game was as follows: 2, 3, 3, 4, 6 Calculate the mean, median and mode. 	13 If the whole square represents one whole, what fraction is light green?	14 A pizza is cut into fifths. % of the pizza has 24 pepperoni slices. If every slice has an equal number of pepperoni slices on it, how many pepperoni slices are there on the entire pizza?
15 An ice cream shop sells cones at a steady rate of 30 cones per hour. If the shop opens at 1:00 pm, how many ice cream cones will have been sold by 7:00 pm?	16	17 Which of the following numbers is a prime number and a factor of 42? A. 11 B. 6 C. 7 D. 5	18 Find two consecutive even numbers such that their sum is 34. What are the two numbers?	19 Sofia's suitcase is 420 grams lighter than Mei's suitcase. If Sofia's suitcase weighs 3.15 kilograms, what is the weight of Mei's suitcase?	20 An ice cream shop offers four different flavours (vanilla, chocolate, strawberry, and mint) and three types of cones (regular, waffle, and sugar). How many different ice cream-cone combinations are possible?	21 Aisha, Carlos, Raj, and Jamal decide to play one-on-one basketball games. If each person plays against every other person exactly once, how many one-on-one basketball games will they have in total?
22 I have a 2-metre-long ribbon, and I want to cut it into pieces that are each 25 centimetres long. How many pieces can I get from the ribbon? *Teachers available to help in the library today, 9am-12pm.	23	24 Emily is baking cookies. She adds ¾ cup of dark chocolate chips and ½ cup of white chocolate chips. How much total chocolate chips (in cups) did Emily add to her cookie dough?	25 In a pile of 300 avocados, 60 of the avocados are ripe. What percentage of the avocados are ripe?	26 Using BEDMAS, solve the equation below. 2 ³ x 7 (3 + 2) = ?	27 If today is a Saturday, and Jason is going on a 32-day holiday, on what day of the week will Jason return?	28 In a garden, there are three flower beds - a circular one, a square one, and a triangular one - containing a total of 15 flowers. The circular flower bed has two more flowers than the square flower bed. The square flower bed has four fewer flowers than the triangular flower bed. How many flowers are in each flower bed?



Blockhouse Bay Intermediate Summer Maths Challenge - ANSWER SHEET									
Name:		2024 Room:	Р	Parent signature:					
December 2023 - January 2024									
Monday	Tuesday	Wednesday	Thursday	Friday	S				
25	26	27	28	29	30				
	Planet =								
	Helmet =								
	Rocket =								
1	2	3	4	5	e				
	Bus =								
	Heart =								
	Bird =								
8	9	10	11	12	13				
	4th case =	Length =		Mean =					
	5th case =	Width =		Median =					
				Mode =					
15	16	17	18	19	20				
	Singlet =								
	Console =								
	Shoe =								
	Wallet =								
22	23	24	25	26	27				
	Biscuit =								
	Cake =								
	Cupcake =								

