BLOOMSM4TH

Makes Maths Fun

Level 5

ADDITION & SUBTRACTION

Bloomsmath is a comprehensive mathematics program which provides a fun way for every student to be learning to the best of their ability.

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BLOOMSM4TH Makes Maths Fun

Level 5

Addition & Subtraction

Level 5 is designed for students in their fifth year at school often called Year 4. Students use mental and written strategies for addition and subtraction involving two, three and four digit numbers.

Knowledge: Students will play "21".

Students who demonstrate proficiency in this activity move on to Comprehension.

STOP

Students stop here as they require additional teacher support to master this activity.

Comprehension: Students will solve the questions in "Detective" by using only the numbers 6, 4, 3 and 2.

Students who demonstrate proficiency in this activity move on to Application.

STOP

Students stop here if time has run out or they require additional support with this activity.

Application: Students will complete the sheet "Missing Numbers".

Students who demonstrate proficiency in this activity move on to Analysis.

STOP

Students stop here if time has run out or they require additional support with this activity.

Analysis: Students will solve "Grid Problems".

Students who demonstrate proficiency in this activity move on to Synthesis.

STOP

Students stop here if time has run out or they require additional support with this activity.

Synthesis: Students will solve a number of magic squares.

Evaluation: Suggested questions provide a startintg point for discussions related to Addition and Subtraction.

Students may complete more or fewer activities for each learning outcome depending on the time allocated and their strength in the area being covered.

All students should participate in the Evaluation discussion to encourage the use of mathematical language, logical reasoning and reflection on that which they have completed.

Name: _____

Knowledge

In pairs or small groups of up to 4 play the game "21".

Each group will need:

- A deck of cards
- The score card shown below

How to play:

- Each player is dealt 2 cards.
- Players look at their cards and add up the total of the numbers to see how close they are to 21.
- Each player must decide whether they need another card or are happy with the cards they have.
- Players can take up to 5 more cards if they wish.

How to win:

- Any player with a total of 21 wins 1 point.
- If a player has 5 cards and a total of under 21 they win 1 point.
- If no player has 21 or 5 cards the highest player's total without going over 21 wins 1 point.
- The player with the most points at the end of 10 rounds wins the game.

Note: Ace can be worth 1 or 11, Jack, Queen and King are all worth 10.

	Player 1	Player 2	Player 3	Player 4
Round 1				
Round 2				
Round 3				
Round 4				
Round 5				
Round 6				
Round 7				
Round 8				
Round 9				
Round 10				
Total				

Name: _____

Comprehension

Using only the numbers 6, 4, 3 and 2 complete each equation below.

1) _____ + _____ + _____ = 11

2) _____ + _____ - _____ = 0

3) _____ + _____ - _____ = 1

4) _____ + _____ - _____ = 3

5) _____ + _____ - _____ = 4

6) _____ - _____ + _____ = 5

7) _____ + _____ - _____ = 7

8) _____ + _____ - _____ = 8

9) _____ + _____ + _____ = 9

10) _____ + _____ + _____ = 12

Name: _____

Application

See if you can use only the numbers 2, 3, 4, 5 and 6 to complete the following number sentences.

No number may be used more than once in any one number sentence.

Example:

_____ + _____ - _____ = 6.
4 + 5 - 3 = 6 is correct
2 + 6 - 2 = 6 is incorrect (2 is used twice).

1) _____ + _____ + _____ = 9
2) _____ + _____ - _____ = 9
3) _____ + _____ - _____ = 2
4) _____ + _____ - _____ = 4
5) _____ + _____ + _____ = 10
6) _____ + _____ + _____ = 11
7) _____ - _____ - _____ = 1
8) _____ - _____ - _____ = 0
9) _____ - _____ + _____ = 3
10) _____ x _____ + _____ = 10
11) _____ x _____ - _____ = 7
12) _____ x _____ - _____ = 2
13) _____ x _____ - _____ = 0
14) _____ x _____ - _____ = 3
15) _____ x _____ + _____ = 11

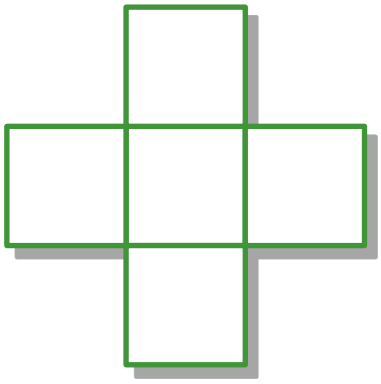
Let's Try This Again
Progress To Analysis

Name: _____

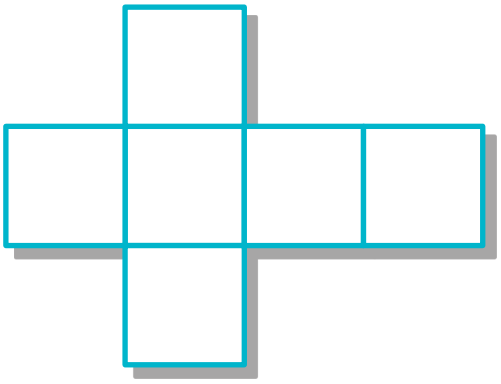
Analysis

Write the given numbers into each grid so that the sum of the numbers both across and down is the same. These problems have more than one solution so once you find one answer for each see if you can find alternate solutions also.

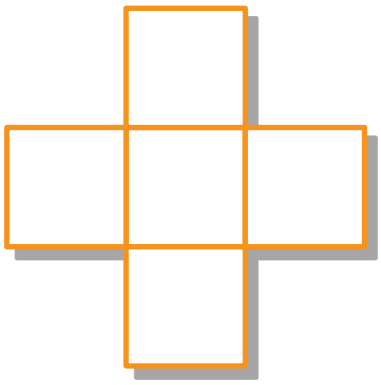
1) 8, 9, 10 and 11



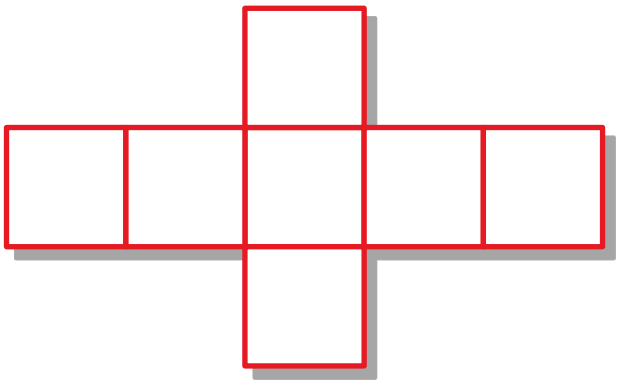
2) 7, 8, 9, 10 and 11



3) 2, 4, 6, 8 and 10



2) 1, 3, 5, 7, 9, 11 and 13



Name: _____

Synthesis

In a Magic Number Square the numbers in each column, row and diagonal all add to the same number. For example in this Magic Number Square every column, row and diagonal adds to give 18.

4	5	9
11	6	1
3	7	8

See if you can solve each Magic Number Square below.

8		6
3	5	
4		2

		8
11		3
6	5	10

9	2	
4	6	8
		3

	7	3
	9	8

7		3
9	4	

10		
	7	9
6		4

Let's Try This Again

Progress To Evaluation

Evaluation

The following questions and activities are provided as a starting point for fun discussions related to Addition and Subtraction. During these conversations students will have an opportunity to use appropriate mathematical language in its correct context, to engage in reflection on the Addition and Subtraction activities they have completed and to use logical reasoning to tie their in-class mathematics to its everyday context.

Ask students how they felt playing 21 and at what point did they need to stop and why?

Provide students with 4 digits and see how many equation combinations they can create for a partner to solve.

Is it harder to make the questions or solve those given to you by someone else?

Ask students to try to create some magic squares of their own.

Was it harder to make the squares or solve the squares – why was this the case?