

Maths Thursday Answers:

1. -6, -3, -2, 2, 4

-10, -9, -8, -7, -6, -5, -4, -3, -2, -1, 0, 1

2. -5

3. -24, -13, 0, 21, 35

4. 9 degrees

5. 92, 73, 37, 12, -2, -12

6. 7 degrees

Challenge:

1. -14

2. -20, -45

12.06.20

I can play different maths
games.

Game 1 – Tug of War

This game is for two players.

You will need to draw a number line from -13 to 13 on a piece of paper, and find a counter and two 1-6 dice to use.



Decide who is Positive and who is Negative.

Positive moves the counter from left to right and Negative moves the counter from right to left. (Why do you think we have suggested this way round?)

Place the counter on 0 (the picture above shows a red counter).

Take it in turns to throw the two dice and add the scores then move the counter that number of places in your direction.

If the counter reaches -13, Negative has won. If the counter reaches 13, Positive has won.

Is it better to play a game where you have to reach the end exactly, or where you can go over the end? What do you think and why?

Now change the game. This time, when you throw the dice, you can decide whether to add, subtract, multiply or divide the numbers on the dice. You must reach -13 or 13 exactly to win.

Interactive

Dice:

<https://nrich.maths.org/6717>

Game 2: Shut the box

Here is a game that uses two dice and cards with the numbers 1 to 12 on them. The aim of the game is to turn over all the cards. You can turn over the cards that match the numbers on the dice.



Make this more challenging:
Invent your own rules. You can use twelve numbered cards instead of six and add, subtract or multiply the scores on the two dice together to find the number to turn over. It may be worth considering changing the rule which ends the turn when double is thrown.

Notes for adults

To play the game, start with the numbers showing on all the cards.

The first player rolls the two dice.

They can turn over the cards which are the same as the numbers rolled.

For example, if a 4 and 5 are rolled, they would turn over the 4 and 5 cards. If a double is thrown, the player's turn ends. They can roll the dice again until they can't turn over any more cards. The cards that are left showing are then added and that is their score.

The dice are then passed to the next player who turns the cards the right way up again and then rolls the dice in the same way as player one. They now can keep on rolling dice as long as each time they can turn over some new cards.

Remember that if a double is thrown, the player's turn ends. When the player can't turn over any more cards, those that are left are added together and that is the player's score.

The winner is the person with the lower score.

It can be played with just one turn each or each player can have a number of turns that you decide at the beginning of the game.

Game 3: Race to 100

Using two dice, player 1 rolls the dice and multiplies the numbers together. You then keep a running score. The next player rolls the dice and multiplies their numbers together. Keep going and adding the score on. The first person to reach 100 is the winner.

To make it harder set a higher target.

So if I roll a 6 and 2 it = 6 then I roll a 5 and 6 and get 30. Add them together and this = 36

Player 1	Player 2