Negative Numbers

Aim: Count forwards and backwards past zero into negative numbers. Solve problems using negative numbers and give reasons for answers.

Denis the Delivery Man

Denis has six parcels to deliver in a block of flats. The deliveries need to be made in a certain order depending on when people are at home. The flats have floors above and below ground level. As Denis delivers the parcels, write what he delivers at the floors he visits in the order that he makes the deliveries. Remember to use the negative value to mark the basement floors.

	Floor		Order		Parcel	
	Floor 4					
	Floor		Order		Parcel	
	Floor		Order		Parcel	
	Floor		Order		Parcel	
	Floor 0					
	Floor		Order		Parcel	
	Floor		Order		Parcel	
	Floor		Order		Parcel	
	Floor		Order		Parcel	
	Floor -5					

1. Denis starts on the ground floor (0) and his first delivery is a cake on floor 2.
2. He then goes down 4 floors to deliver a book.
3. Denis has to go down another 2 floors next to deliver a hat.
4. Once that parcel is delivered, he travels up 9 floors to deliver a CD.
5. After that, Denis goes down to basement level -1 to deliver a lamp. How many floors has he travelled to get there?
6. Up he goes again. This time 4 floors up to deliver some paint. Mark which floor he is at now.
7. Denis has done his last delivery. How many floors must he travel to get back to the ground floor (0)? In which direction is he going?

Challenge

Which floors has Denis not delivered to?

Denis finds another parcel in his bag. It does not have a floor number on it but it does give him a clue. It says 'Deliver me to the floor you have not yet visited with the largest number'. Which floor does Denis need to go to? Explain how you know.