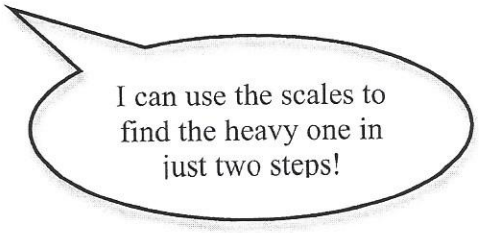
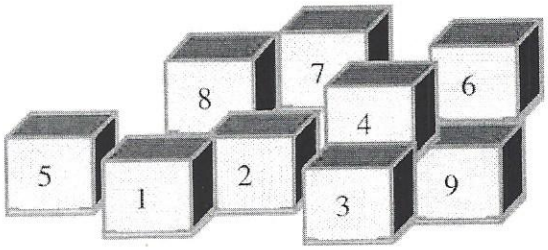
Boxes

This problem gives you the chance to:
- show understanding of a mathematical situation
- explain your reasoning

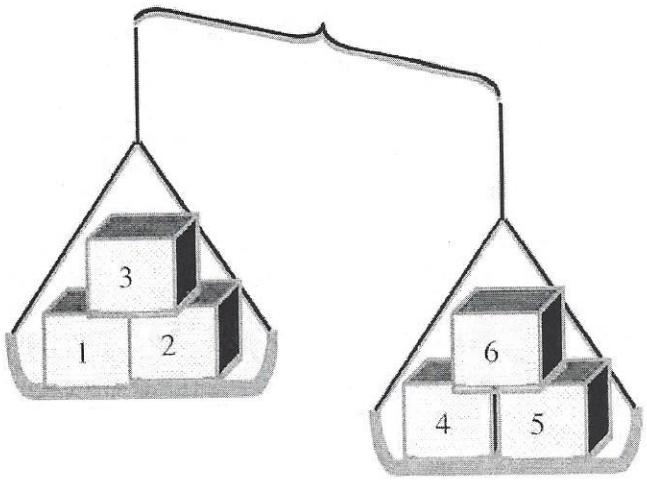
There are nine small boxes.
They all look exactly the same but one is a bit heavier than the others.

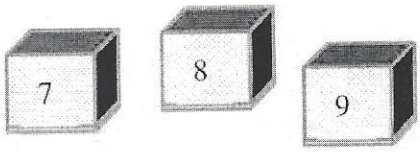
Jake says,





This is what Jake does first.





1. Explain what Jake now knows about the heavy box.

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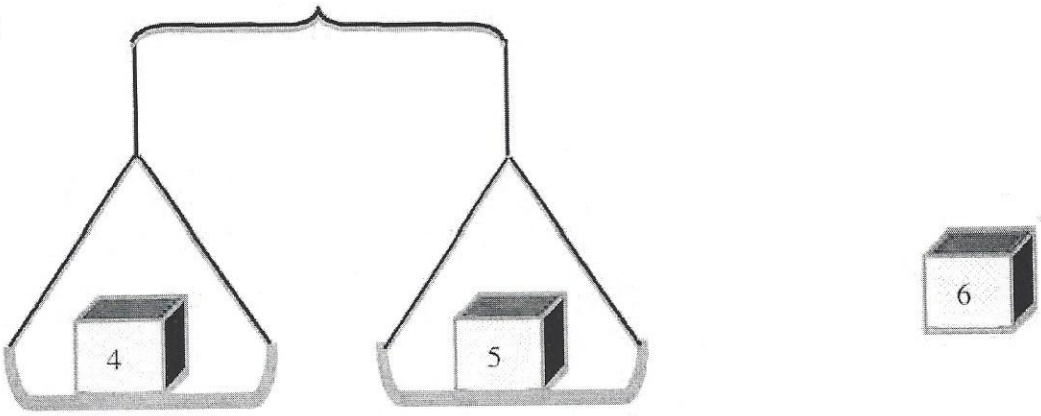
Then Jake d



2. Which is the heavy box? _____

3. Explain how you know.

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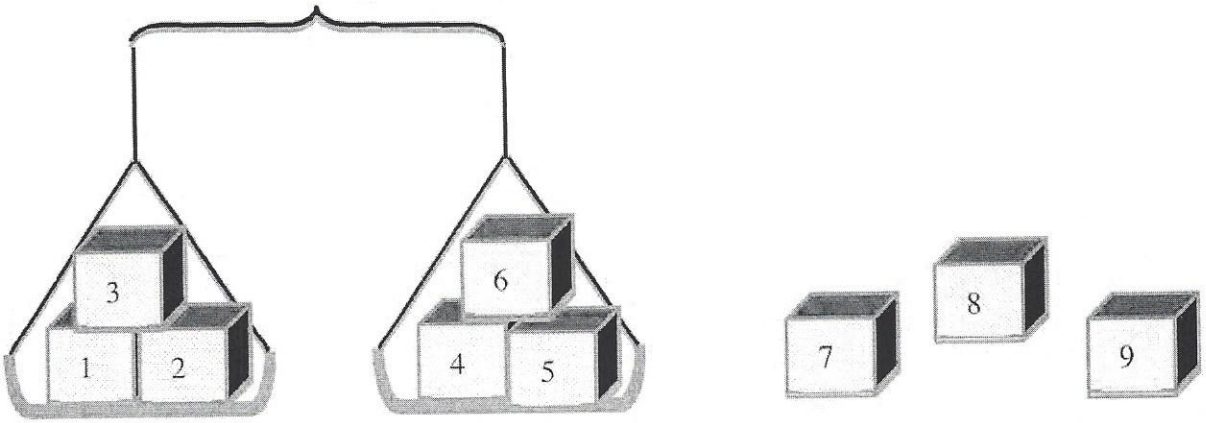
4. Suppose the scales showed this the first time instead.



What should Jake do now to find the heavy box?

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Boxes	Rubric	
The core elements of performance required by this task are: • show understanding of a mathematical situation • explain your reasoning Based on these, credit for specific aspects of performance should be assigned as follows	points	section points
1. Gives correct answer: It is **4, 5, or 6** Accept RHS or lower scale pan.	2	2
2. Gives correct answer: **6**	1	1
3. Gives correct answer: **4 and 5 weigh the same so 6 is the heavy one.** *Partial credit* 4 and 5 are the same weight.	2 (1)	2
4. Gives correct answer such as: Weigh 7 and 8 and leave 9 out. If 7 and 8 weigh the same, 9 is the heavy one. If the scales do not balance, the heavy parcel is in the lower scale pan. Incomplete explanation. Weighs 7 and 8 and nothing else.	3 (2) (1)	3
Total Points		**8**

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