If I drop a light object (a wooden ball) and a heavy object (a steel ball) from 4 m , which will hit the ground first?

1. The light one (by a lot)
2. The heavy one (by a lot)
3. About the same
4. You can' $t$ tell from the information given.

If I drop a light object (a paper ball) and a heavy object (a steel ball) from 4 m , which will hit the ground first?

1. The light one (by a lot)
2. The heavy one (by a lot)
3. About the same
4. You can' $t$ tell from the information given.

## Making sense

- Consider two experiences to see if we can make sense of this.
- A. If I hold the light object and the heavy objects in my hands, which one is pulled more by gravity?
- B. If I kick a soccer ball and a cannon ball with the same kick, which one will speed away faster?


## Which ball will hit first?

1. The shot one
2. The dropped one
3. They' 11 hit at the same time
4. You can't tell from the information given.


Two dense objects (so air drag can be ignored) are shot straight up at the same time from the same height Object A is shot with a speed of $1 \mathrm{~m} / \mathrm{s}$, object $B$ with a speed of $2 \mathrm{~m} / \mathrm{s}$. Which takes longer to come back to its starting point?

1. Object A
2. Object B
3. Both take the same.
4. I can't tell since you didn' $t$ give me the masses.
5. I can't tell for some other reason.
