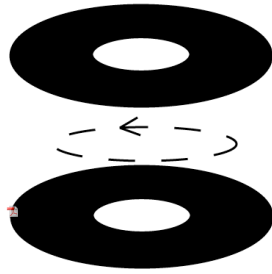


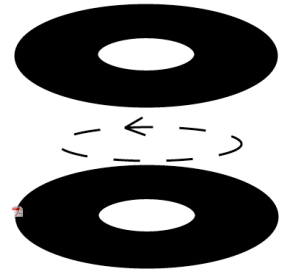
Consider two identical washers. The bottom one is rotating and the top one is not. The top washer is dropped onto the bottom one and they stick together. On your writeup, predict the angular **speed** of the washers after the collision compared to that of the bottom washer before the collision.



Possible answers include:

- * Goes up or down by a factor of ~ 2 .
- * Goes up or down by a factor of ~ 4 .
- * Goes up or down by somewhat more or somewhat less than 2.
- * Goes up or down by somewhat more or somewhat less than 4.
- * Stays the same.
- * Something else not listed above.

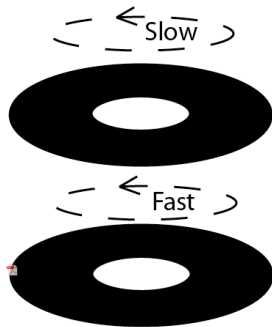
Consider the same situation as described above. Assume that a constant slowing torque acts on the bottom washer and then on the two combined washers. On your writeup, predict the angular **acceleration** of the washers after the collision compared to that of the bottom washer before.



Possible answers include:

- * Goes up or down by a factor of ~ 2 .
- * Goes up or down by a factor of ~ 4 .
- * Goes up or down by somewhat more or somewhat less than 2.
- * Goes up or down by somewhat more or somewhat less than 4.
- * Stays the same.
- * Something else not listed above.

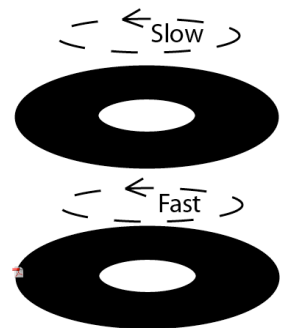
Consider two identical washers. The bottom one is rotating fast and the top one is rotating slowly in the same direction. The top washer is dropped onto the bottom one and they stick together. On your writeup, predict the angular **speed** of the washers after the collision compared to that of the bottom washer before the collision.



Possible answers include:

- * Goes up or down by a factor of ~ 2 .
- * Goes up or down by a factor of ~ 4 .
- * Goes up or down by somewhat more or somewhat less than 2.
- * Goes up or down by somewhat more or somewhat less than 4.
- * Stays the same.
- * Something else not listed above.

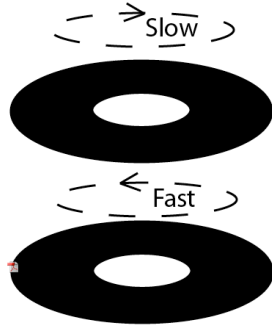
Consider the same situation as described above. Assume that a constant slowing torque acts on the bottom washer and then on the two combined washers. On your writeup, predict the angular **acceleration** of the washers after the collision compared to that of the bottom washer before.



Possible answers include:

- * Goes up or down by a factor of ~ 2 .
- * Goes up or down by a factor of ~ 4 .
- * Goes up or down by somewhat more or somewhat less than 2.
- * Goes up or down by somewhat more or somewhat less than 4.
- * Stays the same.
- * Something else not listed above.

Consider two identical washers. The bottom one is rotating fast and the top one is rotating slowly in the opposite direction. The top washer is dropped onto the bottom one and they stick together.

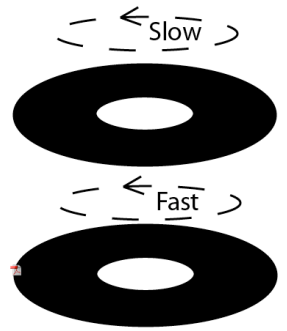


On your writeup, predict the angular **speed** of the washers after the collision compared to that of the bottom washer before the collision.

Possible answers include:

- * Goes up or down by a factor of ~ 2 .
- * Goes up or down by a factor of ~ 4 .
- * Goes up or down by somewhat more or somewhat less than 2.
- * Goes up or down by somewhat more or somewhat less than 4.
- * Stays the same.
- * Something else not listed above.

Consider the same situation as described above. Assume that a constant slowing torque acts on the bottom washer and then on the two combined washers. On your writeup, predict the angular **acceleration** of the washers after the collision compared to that of the bottom washer before.



Possible answers include:

- * Goes up or down by a factor of ~ 2 .
- * Goes up or down by a factor of ~ 4 .
- * Goes up or down by somewhat more or somewhat less than 2.
- * Goes up or down by somewhat more or somewhat less than 4.
- * Stays the same.
- * Something else not listed above.