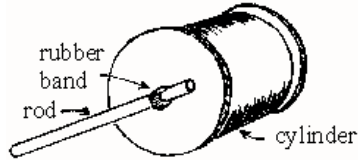


# Rolling toy

This task is about elastic energy.



The students in Ms Wrigley's class made a roller toy like the one in the picture above. Phillipa wound the rod of her toy around so that the rubber band twisted. She then let the toy move across the floor until it stopped. She did this six times, winding the rod a different number of turns each time. Phillipa made this table of results for her roller toy.

No. of complete turns of the rod	2	4	6	8	10	12
Distance travelled (cm)	4	8	12	16	20	?

a) What number will Phillipa probably put in the empty space in the table?

b) What is the connection between the number of turns of the rod and how far the toy moved?

c) Phillipa made some changes to her roller toy to see if she could make the toy move further. Name **two** things she could change.

1.

2.