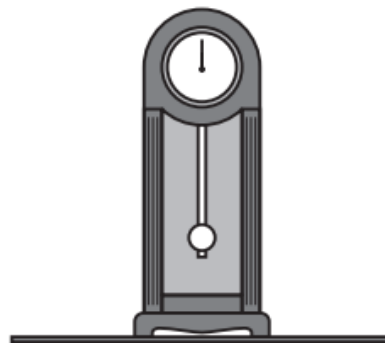


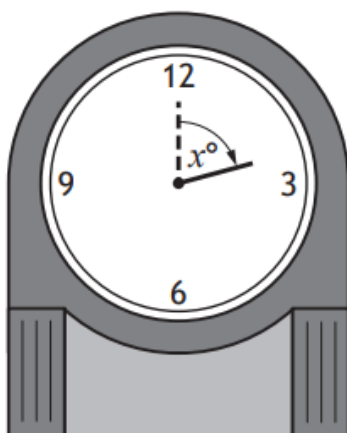
Anna has a grandfather clock in her house.



The height of the tip of the hour hand above the floor, in centimetres, is given by

$$h = 20 \cos x^\circ + 147$$

where x° is the angle the **hour hand** has rotated through since 12 o'clock.



Calculate the first two values of x for which the tip of the hour hand is 150 centimetres above the floor.

4

Answers:

$$x = 81 \text{ or } x = 279$$