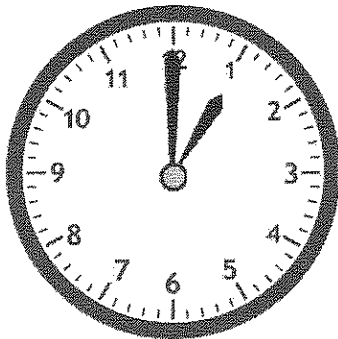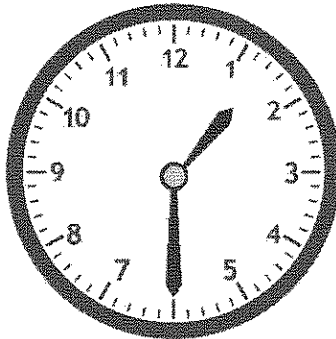## G4-M4-Lesson 8

1. James looked at the clock when he put the cake in the oven and when he took it out. How many degrees did the minute hand turn from start to finish?
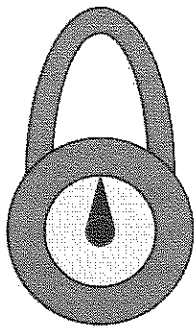

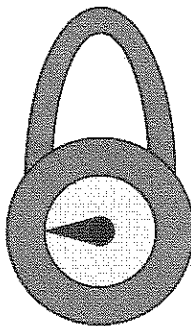*start time*   *end time*

The minute hand turned 180°.

I know from Lesson 5 that there are 360° in a full turn. From the 12 to the 3 is a 90° angle, and from the 3 to the 6 is another 90° angle.

2. Delonte turned the lock on his locker one quarter turn to the right and then 180° to the left. Draw a picture showing the position of the lock after he turned it.

before   *after*
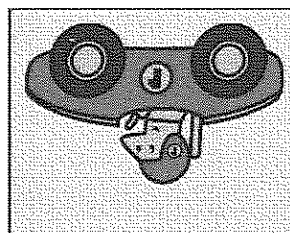
I think of the lock as a clock. A quarter-turn to the right is 15 minutes, and 180° to the left is 30 minutes backward.

3. How many quarter-turns does the picture need to be rotated in order for it to be upright?

To be upright, the picture needs to be turned two quarter-turns.

I can turn the paper itself to help me figure out the answer!