



Problem of the Week

Problem B

Take a Turn

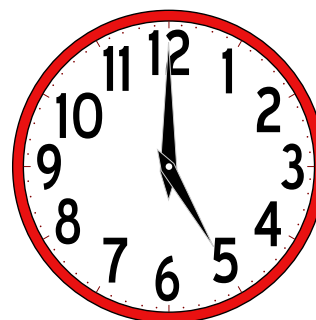
Let's explore some 'turns' in different contexts.

- a) Shredder does snowboard helicopter jumps with ease. If he rotates all the way around in a horizontal circle, through how many degrees does he rotate? What if he only rotates halfway around?



- b) Through how many degrees does the minute hand on an analog clock move during

- i) $\frac{1}{4}$ hour (say from 12:45 to 1:00 o'clock)?
- ii) 1 minute (say from 12:59 to 1:00 o'clock)?



- c) Through how many degrees does the hour hand move in one hour (say from 1:00 to 2:00 o'clock)?

- d) If a clock is keeping time correctly, the minute hand rotates at a rate of 360° per hour. One day, Sam notices that the time on the clock and on her digital watch is the same at noon, but when her watch says 1:00 o'clock, the clock says 1:05. Assuming that Sam's digital watch keeps accurate time, at what rate is the minute hand of the clock rotating now?

