

Mathematics of a clock:

- 1. Using a standard clock (with a minute and hour hands) what is the angle between the hands at 12:30 ? (Note: the angle is NOT 180 degrees)**
(hint: the minute hand moves 360 degrees in 60 minutes, therefore it moves 6 degrees in one minute. The hour hand moves $\frac{1}{12}$ as far as the minute hand)
- 2. What is the angle, for a standard clock, between the hands at 12:15 ? (note: the angle is NOT 90 degrees)**
- 3. CHALLENGE; Using a standard clock, what is the FIRST time after 12:00 that the hands will be at 90 degrees ?**

(Hints: the outline to the solution of 3. follows probs. 1 & 2 above. Algebra knowledge and skill is very useful for obtaining the exact answer)