Let's Practice!

5. Pete is an avid leisure fisherman and keeps an eye on the tide timetable. Study the Simon's Town Tide Timetable for a part of November 2014 below in order to answer the following questions:

5.1 Write down the solar times for 3 November in 12-hour format.

5.2 Calculate the time difference between the Spring Tide and Lowest Tide on 6 November.

5.3 On which days should Pete go out fishing? Give a reason for your answer.

5.4 How much later is the first low tide on 4 November, as opposed to the first low tide on 5 November?

5.5 Pete is only able to go out fishing on Saturday, 8 November, from 2:15 pm - 5:00 pm. What percentage of his fishing time out will be considered as the 'best fishing time'?

SIMON'S TOWN TIDE TABLE
NOVEMBER 2014

Answers

5.1 Sunrise (05:43) → 5.43 am
   Sunset (19:16) → 7.16 pm

5.2   Lowest tide: $\overset{20}{2}\overset{60+2=62}{1}:\overset{}{02}$
   - Spring tide: − 14:43
                    6:19   ∴ 6 hours 19 minutes

5.3 3 - 8 November as the 'Fish-O-Meter' indicates these are the 'Best fishing days'.

5.4   First low tide on 5 November: 07:55
   - First low tide on 4 November: − 07:11
                    00:44
                    ∴ 44 min later

5.5 Fishing Time out:
   ▷ 2.15 pm - 5.00 pm
   ∴ $\overset{16}{17}:\overset{60}{00}$
   − 14:15
     2:45   ∴ 2 h 45 min fishing time out

▷ Best fishing time: 14:24 - 15:26
   ∴ 15:26
   − 14:24
     1:02   ∴ 1 h 2 min best fishing time

▷ % = $\dfrac{\text{best fishing time}}{\text{fishing time out}} \times 100\%$

   = $\dfrac{\text{1 h 2 min}}{\text{2 h 45 min}} \times 100\%$

   = $\dfrac{\text{62 min}}{\text{165 min}} \times 100\%$

   = 37,58%

1 h 2 min
= 60 + 2 = 62 min
2 h 45 min
= 120 + 45 = 165 min