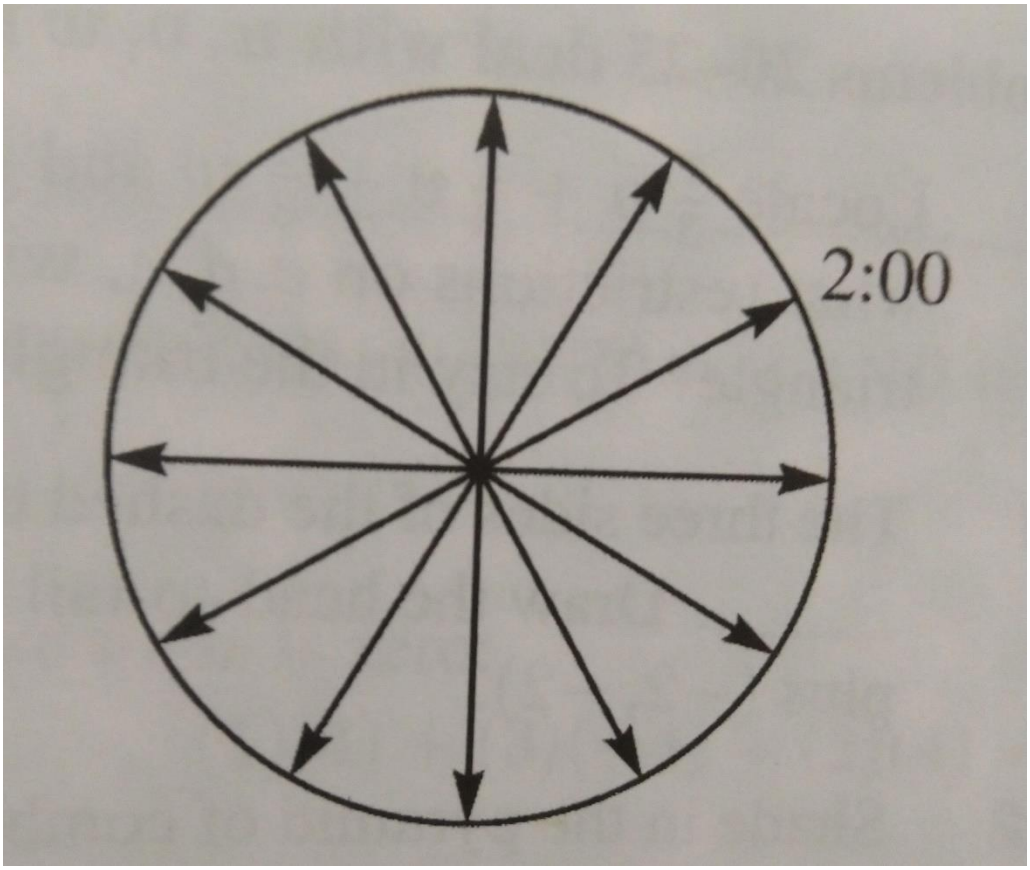
Q1:



a) What is the sum of the 12 vectors shown above that go from the centre of the clock to the hours 1:00, 2: 00, …, 12:00? Explain your answer.

b) If the 2:00 vector is removed, what do the remaining vectors add up to? Explain your answer.

c) Assuming the origin is located at the centre of the clock, what are the x and y components of the 2:00 vector if the clock radius is 10cm? Show your work.