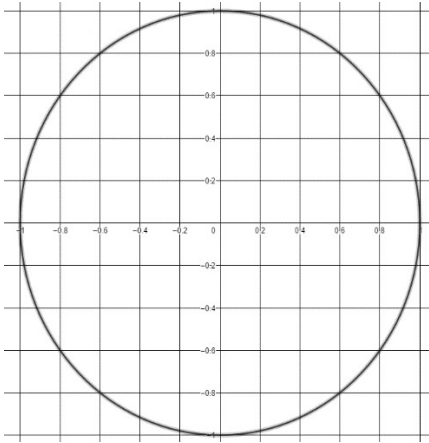**Exercise 1**   Calc. : ✗

Find the value of $\cos\left(\frac{7\pi}{4}\right)$ using the unit circle below.   4 marks
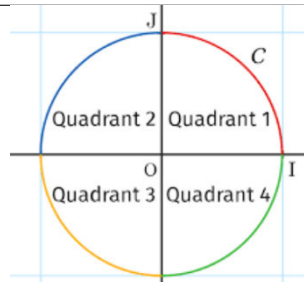

Exercise 2   Calc. : ✗

True or false? Justify your answer.
If $\sin(\alpha) > 0$ and α is in Quadrant 2, $\tan(\alpha) > 0$.   4 marks

Exercise 3   Calc. : ✗

Let A and B be two events such that: $p(A) = 0.4$; $p(B') = 0.3$ and $p(A \cup B) = 0.8$.
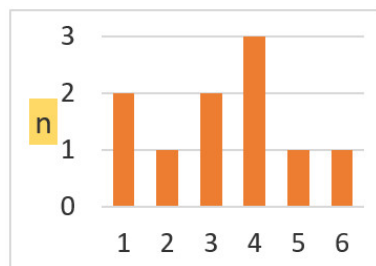Calculate $P(A|B)$.   6 marks

Exercise 4   Calc. : ✗

50% of a hotel rooms have a fireplace, 20% have a radiator and 10% have a fireplace and a radiator. We randomly choose a hotel room.
What is the probability of the room we have chosen to have only a fireplace?   6 marks

Exercise 5   Calc. : ✗

A dice is thrown 10 times. The diagram above shows the absolute frequency n of the 6 possible results.
Based on the diagram above determine the mean and the median.   5 marks