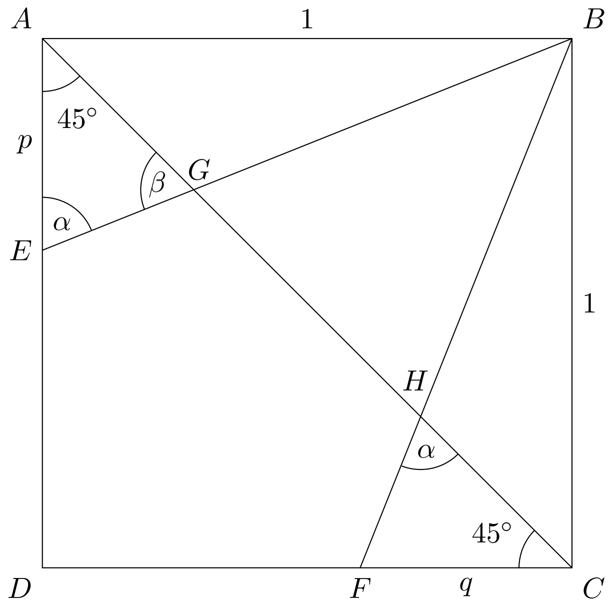
- if necessary, **contains other quantities that you define**; and
- has **North labelled clearly** (if the question involves bearings).

Remark. Once you draw a diagram, read through the question again to ensure that all information given is present. Often, diagrams given in the question will lack at least one piece of information which is usually crucial to the problem to make sure you're actually reading the question.

i) For part i, we first examine $\triangle ABE$. In particular, we can write that

$$\tan(\alpha) = \frac{1}{p}$$
$$\implies \alpha = \tan^{-1}\left(\frac{1}{p}\right).$$ [1]

That was the easy bit. We would very much like to do something similar for β and q in $\triangle BCF$, however $\angle HFC$ is currently unknown. We note that $\angle EAG = \angle FCH = 45°$, since $ABCD$ is a square, AC is a diagonal and diagonals bisect interior angles they pass through in rhombuses (of which squares are a subset). We should put this on our diagram.



Now, looking at triangles AEG and CFH, we have that

$$\angle EAG = \angle FCH \qquad \angle AEG = \angle FHC.$$

Thus, we may conclude $\triangle AEG \mathbin{|||} \triangle FHC$. Since corresponding angles in similar triangles are equal, we must have that $\angle CFH = \beta$. We will put this on our diagram as well.