

- Total points: 10+5+5 quiz points.
- Show *complete work*—that is, all the steps needed to completely justify your answer.
- *Simplify* your answers as much as possible.
- If you need extra space, work on the back and make a note on the front.

(1) Express $\sin A \cos B$ as a sum or difference of sines and cosines (not multiplied together).

(2) Evaluate $\int \cos^2 x \, dx =$

(3) Evaluate $\int \tan^2 x \, dx =$