Question 2 (12 pts): +3 for expansions on each hint

Question 7 (10 pts):
   a) (6 pts) +1 for $\text{det} A$, +1 for stating whether $A$ is invertible, +1 for $\text{det} B$, +1 for stating whether $B$ is invertible, +2 for giving $\alpha$ that makes $C$ invertible
   b) (4 pts) +4 for making LU matrices of $C$ and showing that $\alpha = -5$ makes $C$ invertible

Question 8 (12 pts):
   a) (4 pts) +2 for LU of $A$, +2 for LU of $B$
   b) (8 pts) +1 for $\text{det} A$, +1 for $\text{det} B$, +2 for each explanation of why $B$ is not invertible when $a=0, b=0$, and $c=0$. Explanations must include inspection of columns. Saying that when either of the values are 0 makes the determinant 0 is not enough.
   c) (5 pts) +2 for saying the matrices are bidiagonal. +3 for giving correct cost of $3(n-1)$ or $3n$.

Question 9 (10 pts):
   a) (3 pts) +3 for correct area
   b) (4 pts) +2 for correct area, +2 for correct figures
   c) (3 pts) +3 for showing that new area is the original area multiplied by $\text{det} A$

Question 10 (8 pts): +4 for printed out MATLAB script, +4 for correct printed output of LU matrices