1.12

Parts A) and D) are marked in the code

i) (1258\*13) + (527\*-31) = 17; g = 17, u = 13, v = -31

ii) (1056\*8) + (228\*-37) = 12; g = 12, u = 8, v = -37

iii) (167181\*-4430) + (163961 \*4517) = 7; g = 7, u =-4430, v = 4517

iv) (239847\*59789) + (3892394\*-970295) = 1; g = 1, u = 59789 ,v = -970295

D) If b = 0, then a is the gcd and u = 1 and v = 0.

E)

i) (1258\*-18) + (527\*43) = 17; g = 17, u = -18, v = 43

ii) (1056\*51) + (228\*-11) = 12; g = 12, u = 51, v = -11

iii) (167181\*4517) + (163961 \*-4430) = 7; g = 7, u = 4517, v = -4430

iv) (239847\*59789) + (3892394\*-970295) = 1; g = 1, u = 59789, v = -970295