

HWK #3, DUE WEDNESDAY 10/22

1.8: 8, 10, 16, 20, 30, 31.

1.9: 6, 10, 18, 27, 34, 35.

2.1: 2, 8, 12, 16, 21, 22.

Just for fun:

Say that a rectangle is **semi-integral** if the length of at least one side is a whole number. Show that if a rectangle can be subdivided into finitely many semi-integral rectangles then the original rectangle is semi-integral. (*Hint: compute*

$$\int_a^b \int_c^d \cos 2\pi x \cos 2\pi y \, dx dy.$$

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