WARM UP: MAJOR ROBBERY

1. After many weights were stolen you are left only with
   the weights 1, 2, 4 and 8. Can you balance 18 kilograms using each weight no more than once? Why or why not? What weights can you balance?

2. Someone stole the 1 kilogram weight. What kind of weights can you balance now? (You still have all of the weights 2, 4, 8, 16, ...).