lame:	Period:	Date:	

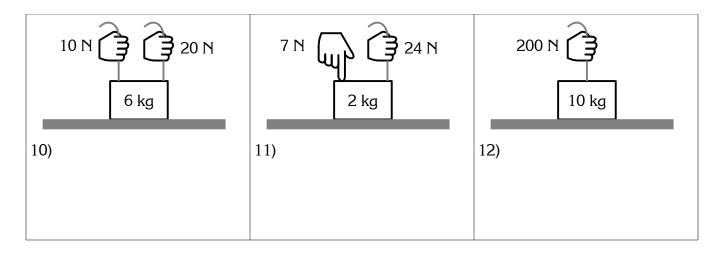
## **Normal Force Exercises**

To simplify the math on this sheet, <u>please use  $g=10.0 \text{ m/s}^2$ </u> instead of the usual 9.8 m/s<sup>2</sup>. This is a common and super-convenient approximation!

## Find the normal force

For each situation below, find the normal force,  $F_N$ , from the table that pushes up on the block. You MUST show your work, starting with  $F_{net}=m\cdot a!$  (In all of these problems, a=0 m/s<sup>2</sup>.)

3 kg	12 N 3 kg	12 N 3 kg
5 N 3 kg 3 kg	25 N 3 kg 5)	25 N 3 kg
45 N 5 kg 7)	20 N (25 N) 5 kg 8)	10 N 5 kg 20 N 5 kg



## Find other stuff, given $F_N$

In these situations,  $F_N$  is given in the form of the scale's reading and you are asked to find either a missing force from a hand or the mass of the block (based on  $F_g$ ). Don't forget to show your work!

