Exponential Notation and SI Prefixes ***ANSWERS***

1. 0.00000000000000000000000000167 kg
   Because writing numbers like that would be annoying and/or mistakes would be easy.

2. Both (a) and (b) are correct but (b) is the best because the calculator will think 9.11 is a separate number in (a). The remaining option (c) is wrong because it is multiplied by 10 one time too many.

3.
   a) 12×10^{-3} m
   b) 52×10^{3} N
   c) 5×10^{-6} s

4.
   a) 3.1×10^{-6}
   b) 5.2231×10^{4}
   c) 2.01×10^{3}

5.
   a) 0.010
   b) 200 (1 s.f.)
   c) 354200 (4 s.f.)

6.
   a) 6.4×10^{4} N kg^{-1}
   b) 3.26×10^{2} m s^{-1}
   c) 4×10^{12} Nm
   d) 7 m^{2}
   e) 3.18×10^{3} m s^{-1}
   f) 4.0447×10^{-27} kg