Order of Operations with Integers Practice

1. $-(^{-}6)^2 + (^{-}6)^2 - 2^3$ *Everything in the brackets is taken to the outer exponent. $^{-}6 \times {}^{-}6$ equals 36 but there is an additonal negative outside of the first bracket so it becomes $^{-}36$.

   $= {}^{-}36 + 36 - 8$
   $= 0 + {}^{-}8$
   $= \boxed{{}^{-}8}$

2. $3-6(^{-}3)$

   $=3-{}^{-}18$ *Remember to do the additive inverse.
   $=3+18$
   $=\boxed{21}$

3. $^{-}2^2 + 10^2 - 5$ *The negative is not in brackets in front of the two so only the two is squared and not the negative sign (means -(2)(2) which is equal to $^{-}4$.

   $= {}^{-}4 + 100 - 5$
   $= 96 - 5$
   $= \boxed{91}$

4. $\dfrac{3+[6-2(3+5)+12(^{-}1)^8]2}{(^{-}1)^{12}}$ *Only the -1 is taken to the eighth because the exponent is not outside of the large bracket.

   $= \dfrac{3+[6-2(8)+12(1)]2}{1}$
   $= \dfrac{3+[6-16+12]2}{1}$
   $= \dfrac{3+[6+{}^{-}16+12]2}{1}$
   $= \dfrac{3+[{}^{-}10+12]2}{1}$
   $= \dfrac{3+(2)2}{1}$
   $= \dfrac{3+4}{1}$
   $= \dfrac{7}{1}$
   $= \boxed{7}$

   *In questions with a top row and a bottom row, solve each part then divide the final answers on the top and the bottom.

5. $^{-}2(^{-}2)(6) + 3(2)$

   $=24 + 6$
   $=\boxed{30}$

6. $\frac{7(1^5)(2)(0^{10})}{(5421)(2)}$

$= 0$

*zero times anything equals zero and any number divided into zero equals zero so there is no need to do all of the calculations!

7. $\frac{[16(2)(^-1)]^2}{2(^-1)} + \frac{6-10+(2(6)+3)}{11(1)(^-1)^6}$

*Everything in the first large bracket is squared. Only the -1 is taken to to the sixth in the last bottom row.

$= \frac{(^-32)^2}{^-2} + \frac{6-10+(12+3)}{11(1)(1)}$

$= \frac{1\ 024}{^-2} + \frac{6+^-10+15}{11}$

$= ^-512 + \frac{^-4+15}{11}$

$= ^-512 + \frac{11}{11}$

$= ^-512 + 1$

$= \boxed{^-511}$