1. Round 62,486 to the nearest
   a) ten thousand \( 62,486 \rightarrow 60,000 \)
   b) hundred \( 62,486 \rightarrow 62,500 \)

2. The population of Stanislaus County in 2010 was 514,451. The average income per
   person was $19,872.
   a) Round each number to one non-zero digit
      \[ 514,451 \rightarrow 500,000 \]
      \[ 19,872 \rightarrow 20,000 \]
   b) Estimate the product.
      \[ \left( \frac{500,000}{5} \right) \times 20,000 = 10,000,000,000 \]
      multiply \( \times 2 \) = 10 \( \times \) 9 zeroes

3. Find the quotients:
   a) \( \frac{0}{56} = 0 \)
   b) \( \frac{19}{0} = \text{undefined} \)
   c) \( \frac{21}{21} = 1 \)

4. Write "yes" or "no" after each of the following to determine its divisibility.
   Is 107,028 divisible by 3?
   a) divisible by 3? \( 1 + 7 + 2 + 8 = 18 \) yes
   b) divisible by 4? yes (28 is div. by 4)
   c) divisible by 5? no (does not end with 0 or 5)

5. Simplify: \(-5^2 + 2(-3)^2\)
   \[-25 + 2(9)\]
   \[-25 + 18 = -7\]
6. Simplify: 
\[
\begin{align*}
6 - 2[3 + (-11)] + \sqrt{7 + 9} \\
6 - 2[-8] + \sqrt{16} \\
6 - 2[-8] + 4 \\
b + 16 + 4 &= 26
\end{align*}
\]

7. Simplify: 
\[
\begin{align*}
\frac{40 - 2[3 - 7]}{10 - 19} &= \frac{40 - 2 \cdot 4}{-9} \\
&= \frac{40 - 8}{-9} \\
&= \frac{32}{-9} \\
&= -\frac{32}{9}
\end{align*}
\]

8. For the test scores: 74, 81, 41, 76
   a) Find the median
   
   \[
   41, 74, 76, 81
   \]

   b) Find the average (mean)
   
   \[
   \frac{41 + 74 + 76 + 81}{4} = \frac{272}{4} = 68
   \]

9. A bank account is opened, and the following transactions are made:
   Initially deposit $600, withdraw $240, deposit $157, withdraw $320.
   a) Write these transactions as an expression, using signed numbers.
   
   \[
   600 + (-240) + 157 + (-320)
   \]
   or
   
   \[
   600 - 240 + 157 - 320
   \]
   b) What is the final balance in the account?
   
   \[
   \begin{array}{ccc}
   \text{Pos} & \text{Neg} & \text{Balance} \\
   600 & -240 & 757 \\
   157 & -320 & -560 \\
   757 & -560 & $197
   \end{array}
   \]
10. How much electric fence is needed to surround a field with dimensions 150 ft. X 80 ft?

\[ P = 2L + 2W = 2(150 \text{ ft}) + 2(80 \text{ ft}) = 300 \text{ ft} + 160 \text{ ft} = 460 \text{ ft} \]

11. Find the area of the room below:

\[ A = (40 \text{ ft})(22 \text{ ft}) + (28 \text{ ft})(30 \text{ ft}) = 880 \text{ ft}^2 + 840 \text{ ft}^2 = 1720 \text{ ft}^2 \]

12. Write > or < between each pair of numbers to express the correct inequality:
   
   a) \(-23 < -3\)
   
   b) \(6 > -10\)

13. Simplify:
   
   a) \(\sqrt{64} = 8\)

   b) Find the square roots of 49

14. Give the absolute value of -237 and the absolute value of 12

   \[ | -237 | = 237 \quad | 12 | = 12 \]

   b) Give the additive inverse of -237 and the additive inverse of 12

   \[ +237 \quad -12 \]

15. Simplify:

   \[ -18 + (-52) \]

   Same sign (add amounts)
   
   Both neg \(\Rightarrow\) neg.

   \[ = -70 \quad \frac{-52}{18} \]

   \[ \frac{-70}{-10} \]
16. Simplify: \(-31 - (-12)\)
\[
\begin{array}{c}
-31 + + 12 \\
\hline
19
\end{array}
\]
\[
\text{opposite signs, subtract amounts } = -19
\]
17. Simplify: \(-39 + (-82) + 18 - 7 + 82\)
\[
\begin{array}{c}
-39 + 18 - 7 \\
\hline
-28
\end{array}
\]

18. A taco truck costs $50,000. Each month, $1000 is spent on supplies and $4000 is earned from sales.
   a) Calculate the costs for the first year.
   \[
   C = 50,000 + 12(1000) = 62,000
   \]
   b) Calculate the revenue for the first year.
   \[
   R = 12(48,000) = 48,000
   \]
   c) What is the net? Is it a profit or loss?
   \[
   N = R - C = 48,000 - 62,000 = -14,000 \text{ loss}
   \]

19. Simplify: \((-1)(-7)(-6)\)
\[
\frac{(-1)(-7)(-6)}{(3)(-2)} = \frac{42}{-6} = -7
\]

20. Ana drives from 8:30 am to 12:00 noon, then drives from 1:30 pm to 5 pm. If her average speed is 60 mph, how far does she drive?
   
   \[
   \frac{8:30 - \text{noon}}{3 \text{ hrs, } 30 \text{ min}} \quad \frac{1:30 - 5 \text{ pm}}{3 \text{ hrs, } 30 \text{ min}} = \frac{6 \text{ hrs}, 60 \text{ min}}{7 \text{ hrs total}}
   \]
   \[
   d = rt
   \]
   \[
   d = (60 \text{ mph})(7 \text{ hrs}) = 420 \text{ miles}
   \]