Mathematics Assessment Program

Middle School Mathematics

Short Tasks: Expressions and Equations

1. A straight fence is constructed from posts 6 inches wide and separated by lengths of chain 5 feet long. A certain fence begins and ends with a post. If there are 7 posts, what is the total length of the fence?

2. One of the numbers below has the same value as $\mathbf{3.5 \times 10^{-3}}$.
   Write true under the correct number.
   $\mathbf{35 \times 10^{-4}}$ $\mathbf{3.5 \times 10^{3}}$ **0.00035** **3500**

3. Use the formula
   $P = \frac{V^2}{R}$ to calculate the value of P when $V = 6 \times 10^6$ and $R = 7.2 \times 10^8$

4. Sheila works 8 hours per day on Monday, Wednesday and Friday, and 6 hours per day on Tuesday and Thursday. She does not work on Saturday and Sunday. She earns $324 per week. How much does she earn in dollars per hour

5. Find the value of $(3 \times 10^4) + (2 \times 10^2) + (4 \times 10)$.

6. If x and y are positive integers, and $3x + 2y = 13$, what could be the value of y?

7. Draw a circle around the expression which is greatest when n is a negative number?
   $n - 2$ $2n$ n^2 $\frac{n}{2}$ $\frac{2}{n}$

8. Draw a circle around the largest of these numbers?
   2×10^{-2} 3×10^{-1} 3.2×10^{-1} 2.5×10^{-3}

9. Find the value of: $\frac{2.1 \times 10^6}{7 \times 10^3}$

10. If the product of 6 integers is negative, at most how many of the integers can be negative?