

**2013 Cindy D. Wright, Pizitz Math Tournament
Seventh Grade Ciphering**

1.1 Simplify. $[(6 + 8) + 5 \cdot 7] + 10$

1.2 $\frac{4}{5}$ of $\frac{5}{6}$ of $\frac{3}{8}$ is what percent of 2?

1.3 A runner finished a race in 10.5 s. In the next race, the runner finished in 9.8 s. Find the percent of decrease in the running time.

1.4 Find the distance between the points (7,12) and (4,16).

1.5 What is the surface area of a cube with edge 5 cm.

2.1 Simplify. $\frac{3\frac{2}{3}}{-4\frac{1}{2}}$ Express the answer as a fraction.

2.2 What is the units digit of $(7^{2009})^{2009}$.

2.3 Simplify. $4x(3x + 2) - 1 \cdot 8x + 9$

2.4 Find the product. $(\frac{1}{2}c + 10)(\frac{1}{2}c - 10)$

2.5 Solve for x. $x = \frac{(189)(10!)(\sqrt{999})(0)}{648}$

3.1 Evaluate if $a = 6$, $b = 4$, and $c = 3$.

$$\frac{4(a-b)}{c-1}$$

3.2 Solve for x. $9 = -3x - 18$

3.3 Simplify. $\sqrt{112x^4y^8}$

3.4 What is the degree of the interior angle of an icosagon?

3.5 Find the next three terms in the sequence.

9, 7, 10, 8, 11, 9, 12,

4.1 Simplify. $(-2 a^3 b^5)^3$

4.2 Find the product of the complement of 12° and the supplement of 24°

4.3 What is the probability of being born on February 30th? Assume that it can be leap year.

4.4 Simplify. $-17 + [-16 + (14 + 32)]$

4.5 Solve for x. $(x - 7)^2 = 49$

Extra1 Find the product of the GCF and LCM of $16a^3b^5$ and $32a^4b$.

Extra 2 Simplify. $\frac{(11 \cdot 15) + (2 \cdot 5)}{3^2 + 4^2}$

Extra 3 The sum of 2 integers is -2. The product of two integers is - 24.
What is the sum of their reciprocals?