

- Use words to write 4 049 001 021. **four billion, forty-nine million, one thousand, twenty-one**
- Round 4 049 001 021 to the nearest ten million. **4 050 000 000**
- Find the perimeter and area of a rectangle with sides $\frac{3}{4}$ in and $\frac{1}{2}$ in. **$P = \frac{5}{2}$ in $A = \frac{3}{8}$ in²**
- Find the average of the prime numbers between 40 and 55. **46**
- Find the least common multiple of 200, 78, and 45. **23 400**
- Consider the following numbers: 4805, 26 000, 1628, 6155, and 80 765.
 - Find all numbers from the list that are divisible by 4. **26 000, 1628**
 - Find all numbers from the list that are divisible by 5. **4805, 26 000, 6155, 80 765**
 - Find all numbers from the list that are divisible by 20. **26 000**
- Find $\frac{3}{15}$ of 300. **60**
- Write $\frac{9}{5}$ with denominator 100. **$\frac{180}{100}$**
- Reduce $\frac{720}{1296}$ to lowest terms. **$\frac{5}{9}$**
- Which fraction is larger, $\frac{5}{6}$ or $\frac{9}{11}$? **$\frac{5}{6}$**
- Write $12\frac{1}{10}$ as an improper fraction. **$\frac{121}{10}$**
- Write $\frac{123}{7}$ as a mixed number. **$17\frac{4}{7}$**
- Perform the following operations. Do not use a calculator.
 - $\frac{36}{28} \cdot \frac{7}{6} - \frac{5}{7} \div \frac{15}{21} = \frac{1}{2}$
 - $\frac{63}{54} \cdot \frac{21}{35} \cdot \frac{15}{22} = \frac{21}{44}$
 - $\frac{14}{21} \cdot \frac{7}{2} \div \frac{14}{6} - \frac{16}{24} \cdot \frac{12}{4} \cdot \frac{1}{3} = \frac{1}{3}$
 - $\frac{-3^2 + (-2)^3 - 3(2 - 2^2)}{2(3^2 - 2^3)} = -\frac{11}{2}$
 - $\frac{-3 - [-(-2)] + [(-1)^2 - (-2)^2] [(-1)^8 + (-2)^2]}{-3 - (-2) + [(-2)^5 - (-5)(6)] (-2) - 5} = 10$

14. Evaluate the expression $a^3 - 3a^2b + 3ab^2 - b^3$ if

a) $a = 3$ and $b = 2$ **1**

c) $a = -3$ and $b = -2$ **-1**

b) $a = -3$ and $b = 2$ **-125**

d) $a = \frac{3}{2}$ and $b = \frac{1}{2}$ **1**

15. Solve each of the following equations. Make sure to check your solution.

a) $8b - 5 = 35$ **5**

c) $\frac{4x - 6}{-2} = 5$ **-1**

b) $x - \frac{1}{6} = \frac{1}{2}$ **$\frac{2}{3}$**

d) $\frac{5}{7}x + \frac{2}{3} = \frac{20}{21}$ **$\frac{2}{5}$**

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