

1.2.4 Compute $(1 + 2 + 3 + \cdots + 49 + 50) + (99 + 98 + 97 + \cdots + 51 + 50)$.



1.3.1 What is the value of the product $25 \cdot 17 \cdot 4 \cdot 20$? (Source: MOEMS)

1.4.3 What is the sum $-10 + (-9) + (-8) + \cdots + 9 + 10 + 11 + 12$?

1.4.4 What is the value of $210 \cdot 5 + 105 \cdot (-9)$? (*Source: MATHCOUNTS*)

1.4.5 What is $9342 + (-438)719 + (-9340) + (-438)(-719)$? (*Source: MATHCOUNTS*)

1.5.6 Compute $100 - 2 + 101 - 4 + 102 - 6 + 103 - 8 + 104 - 10$. (*Source: MATHCOUNTS*)

1.5.7 Compute $(1901 + 1902 + 1903 + \cdots + 1993) - (101 + 102 + 103 + \cdots + 193)$. (*Source: AMC 8*)

1.5.11★ The sum of the first 10,000 positive even numbers is how much more than the sum of the first 10,000 positive odd numbers?

1.6.5 Compute $(2 \cdot 3 \cdot 4) \left(\frac{1}{2} + \frac{1}{3} + \frac{1}{4} \right)$. (Source: AMC 8)

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1. The first group of people who are interested in the study of the history of the United States are the people who are interested in the history of the United States.

1.50 Compute: $1 - 3 + 5 - 7 + 9 - 11 + 13 - 15 + 17 - 19 + 21 - 23 + 25$.

1.52 Express in simplest form: $(-20)((-3)(-15) - (-6)(3))$. (Source: MATHCOUNTS)

1.54 Evaluate $40 \cdot \frac{1}{8} + 40 \div \frac{1}{8} + 40 \cdot \frac{1}{5} + 40 \div \frac{1}{5}$.

1.55 Express in simplest form: $(6 \div (-3))(4 - 12)$. (Source: MATHCOUNTS)

1.68 What is the product $(40 + (-10))(36 + (-9))(32 + (-8)) \cdots (-32 + 8)(-36 + 9)(-40 + 10)$ where the first number in each factor is decreasing by 4, and the second number in each factor is increasing by 1? (Source: MATHCOUNTS)

1.75★ Find the sum of the digits in the answer to

$$\underbrace{9999 \dots 99}_{94 \text{ nines}} \times \underbrace{4444 \dots 44}_{94 \text{ fours}} .$$

The first number has 94 digits, each of which is a 9. The second number also has 94 digits, each of which is a 4. (Source: AMC 8) **Hints:** 57, 143