

Problem 1. Find

$$1 + 2 + 4 + 8 + 16 + \cdots + 1024$$

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Problem 2. Find

$$1 - 2 + 3 - 4 + 5 - 6 + \cdots + 2003$$



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Problem 3. A man can cut a long cylindrical log into 4 cylindrical pieces in 5 minutes. Into how many such pieces can he cut it in 10 minutes?



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Problem 4. Find the radius of the circle whose equation is

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Problem 5. Alice, Bob, Charlie and Diane stand in a line in a random order. What is the probability that Alice and Bob are standing next to each other?



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Problem 6. Both of Ted's Algebra II classes took the same test. With 20 students in the first class, the average score was 80%. With 30 students in the second class, the average score was 70%. The average score of all his students was

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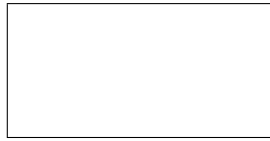
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Problem 9. Leslie drives 50 mph to a city 60 miles away. At what rate must she drive on the return trip so as to average 60 mph for the round trip?

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Problem 10. A point P is chosen inside parallelogram $ABCD$. If $\triangle PAB$ has area 10, $\triangle PBC$ has area 8 and $\triangle PCD$ has area 7, then what is the area of $\triangle PDA$?



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