
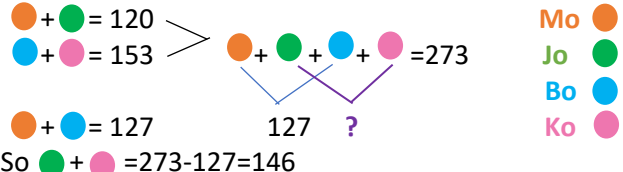


<p>1. $9 + 99 + 999$ $= 9 \times 1 + 9 \times 11 + 9 \times 111$ $= 9 \times (1 + 11 + 111)$ $= 9 \times 123$ D. 123</p>	<p>2. my brothers age = my age + 6 sum of our ages = my brothers age + my age sum of our ages = (my age + 6) + my age $30 = \text{my age} + \text{my age} + 6$ $24 = 2 * (\text{my age})$ $12 = \text{my age}$ A. 12</p>
<p>3. Since $\\$50 - \\$16 = \\$34$, Don paid $\\$34 \div 5 = \\6.80 per tropical punch. B. $\\$6.80$</p>	
<p>4. Three different books, A, B, C, are arranged on my bookshelf. They may be arranged as ABC ACB BAC BCA CAB CBA D. 6</p>	<p>5. A square piece of paper has a perimeter of 36 cm. Twice the perimeter is 72 cm. Each side is $72 \div 4 = 18$ cm. The area is 324 cm^2. D. 324 cm^2</p>
<p>6. The value of 1 quarter, 1 dime, and 1 nickel is 40¢. My coins must have a total value divisible by 40¢. $\\$3.80$ is not divisible by 40¢, so it can't be the total value. B. $\\$3.80$</p>	<p>7. $10 = 2 \times 5$, and $24 = 2 \times 12$. The least common multiple of 10 and 24 is $2 \times 5 \times 12 = 120$. The greatest common factor of 10 and 24 is 2. Their sum is $120 + 2 = 122$. B. 122</p>
<p>8. For every 8 vehicles in the lot, 5 are cars and 3 are trucks. If the lot has 120 vehicles, that's 15 groups of eight cars. Each group has 5 cars: $15 \times 5 = 75$. A. 24 B. 45 C. 75 D. 80</p>	<p>9. Maria had 28 dreams last month, and 4 involved no animals. So 24 of her dreams involved animals. Since $16 + 15 = 31$ involved monkeys or squirrels, then at least $31 - 24 = 7$ dreams involved both monkeys and squirrels. B. 7</p>
<p>10. A fair sells a "combo" ticket for \$30 entry and a "per ride" ticket for \$12.50 to enter plus \$5 per ride. A "per ride" ticket costs $\\$12.50 + \\$15 = \\$27.50$ for 3 rides and $\\$12.50 + \\$20 = \\$32.50$ for 4 rides. For a "combo" ticket to cost less than a "per ride" ticket, a person must go on at least 4 rides. B. 4</p>	<p>11. Since $5 \times 4 = 20$, the ones digit of the given product must be 0. $9 \times 8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8 \times 9$ $= 9 \times 8 \times 7 \times 6 \times 20 \times 3 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8 \times 9$ A. 0</p>
<p>12. The possibilities are: 1) XOXOXOO, 2) XOXOOXO, 3) XOXOOOX, 4) XOOXOXO, 5) XOOXOOX, 6) XOOOXOX, 7) OXOXOXO, 8) OXOXOOX, 9) OXOOXOX, and 10) OOXOXOX D. 10</p> 	<p>14. Place 100 2×2 squares in a line. The perimeter is $2 \times (2 + 200) = 404$. D. 404</p>
<p>13. Method 1: Mo and Jo with Bo and Ko have a total of $120 + 153 = 273$ coins. If we subtract the 127 coins Mo and Bo have, Jo and Ko have 146. D. 146</p>	<p>Method 2: The charts will show the coins owned by them:</p>  <p> $\text{Mo} + \text{Jo} = 120 + 153 = 273$ $\text{Bo} + \text{Ko} = 127 + 146 = 273$ So $\text{Jo} + \text{Ko} = 273 - 127 = 146$ </p>