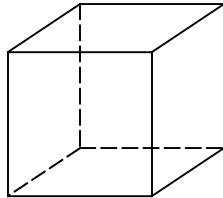1. You do multiplication before addition, so 2 + 5 x 4 = 2+ 20 = 22.

    Answer: <u>22</u>

2. The biggest challenge is drawing or imagining the cube.

    you can easily count from this picture: 6 faces, 8 vertices, and 12 edges. 6 + 8 – 12 = 2. Note: The answer to this question is always 2, even if you change the geometrical solid, say, a triangular prism.

    Answer: <u>2</u>

3. You want the number you get after adding 1 to be 6, so that answer is 5. You can also solve this with variables:

    $4 (x + 1) = 24$
    $x + 1 = 6$
 $x = 5$

    Answer: <u>5</u>

4. There are many ways to think of this, but to convert from fraction to percent, usually you write the fraction in decimal form and multiplying by 100 %. 6/8 = ¾ = 0.75, 0.75 x 100 % = 75 %.

    Answer: <u>75%</u>

5. 7 quarters is worth 7 x 25 = 175 cents, 175 cents divided into nickels is 175 ÷ 5 = 35 nickels. Or: each quarter is worth 5 nickels, so you have 5 x 7 = 35 nickels.

    Answer: <u>35</u>

6. An equilateral triangle has three sides of the same length, so each side length is 18 ÷ 3 = 6.
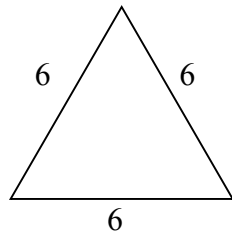
   Answer: <u>6</u>

7. The average of these numbers is 90 ÷ 3 = 30. So the numbers must be 29, 30, 31. So the answer is 29. You can also get it by trial and error.

   Answer: <u>29</u>

8.

$$1\frac{3}{4} - \frac{5}{6} = 1\frac{9}{12} - \frac{10}{12} = \frac{21}{12} - \frac{10}{12} = \frac{11}{12}$$

Your steps don't really matter as long as you found a common denominator. Note many students probably used the denominator 24, which makes things slower.

   Answer: <u>11/12</u>