Flashback #7

1. Estimate the value of each square root

$$\sqrt{3.8} \qquad \sqrt{\frac{7}{20}} \qquad \sqrt{\frac{144}{25}} \qquad \sqrt{0.25}$$

2. Determine the perimeter of a rectangle with sides of (2x + 7) and (3x – 10).

3. Order the rational numbers from smallest to largest (no calculator)

$$\sqrt{\frac{16}{25}} \qquad \frac{-2}{-5} \qquad \frac{10}{-3} \qquad 0.6$$

4. Which rectangular prism has the larger surface area, Block A which measures 2 cm by 3 cm by 5 cm or block B which measures 1 cm by 4 cm by 8 cm? By how much?

5. Identify two rational numbers between 0.25 and 0.26.

6. Evaluate (no calculator) 4^3 2^5 -1^6 $(-2)^4$

7. Simplify: $(-4)^6 \div (-4)^8 \cdot (-4)^{12}$

8. Solve: $\frac{2}{3}x + 4 = \frac{-x}{4} + 10$

9. A plastic mini surfboard has dimensions of 17.5 cm by 12.5 cm. Determine the dimensions of the enlargement if a scale factor of 7/2 is used.

10. Is the following question biased? If yes, what factor is affecting the data collection?

    "Do you think it is a good idea to use DNA tests to convict a violent criminal?"

    How could you rewrite the question to eliminate the bias?

11. Write an equation to model the following pattern created with toothpicks: