Thinkwell's Placement Test 3

Thinkwell's Placement Test 3 is a 10-question test. Complete each question independently and show all work. The test is not timed, but you should finish in less than 1 hour. Use the answer key to score your test after you finish all of the test questions. A recommendation can be made regarding your readiness for Thinkwell's Homeschool 8th Grade Math based on your score on this test.

1. Simplify the expression $[(4 + 2 \times 2) - 5]^3$.

2. Order the numbers from least to greatest.

$$0.094, \ -0.01, \ \frac{1}{2}$$
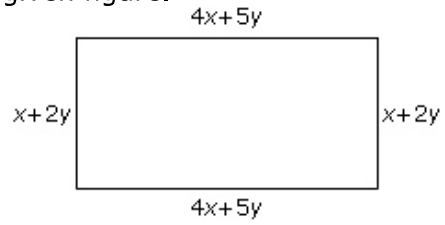
3. Solve. $\quad -2 = \dfrac{s}{-8}$

4. Solve. $\quad 31 = 4y - 6$

5. A pattern for a wedding outfit calls for $12\frac{1}{4}$ yards of lace trim for the dress and $9\frac{6}{7}$ yards of lace trim for the veil. How many yards of lace trim does the pattern call for?
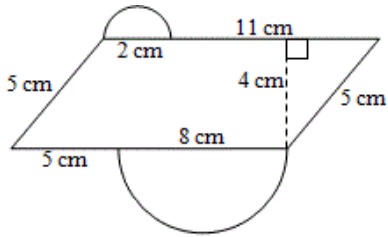
6. Larry has 150 cents in his piggy bank. He puts 20 cents into it every day. Write a linear function that describes the amount in the piggy bank over x days and a graph that shows the amount over 5 days.

7. Which quadrant or axis contains the point (12, −10.2)?

8. Write an expression for the perimeter of the given figure.

$4x+5y$

$x+2y$ $x+2y$

$4x+5y$

9. Identify the perimeter and area of the figure. Use 3.14 for π.

11 cm
2 cm
5 cm
4 cm
5 cm
8 cm
5 cm

10. The given pair of figures is similar. Find y.

135 cm
94 cm
72 cm

180 cm
y