

Name: \_\_\_\_\_  
Mathematics Period 3

Date: 5/1/15  
Ms. Wilson

**Expression and Equations  
Classwork**

For questions 1-4, evaluate each expression for the given values of the variables. Round decimal answers to the nearest hundredth as necessary, and write fractional answers in simplest form.

1.)  $3x + 2y$  when  $x = 4$  and  $y = 11\frac{1}{4}$

2.)  $3(a + b) + 2$  when  $a = 6$  and  $b = 5$

3.)  $\frac{A-B}{2} + 9$  when  $A = 26.32$  and  $B = 8.12$

4.)  $5D$  when  $D = 4\frac{9}{16}$

For questions 5-7, solve each equation for the given variable.

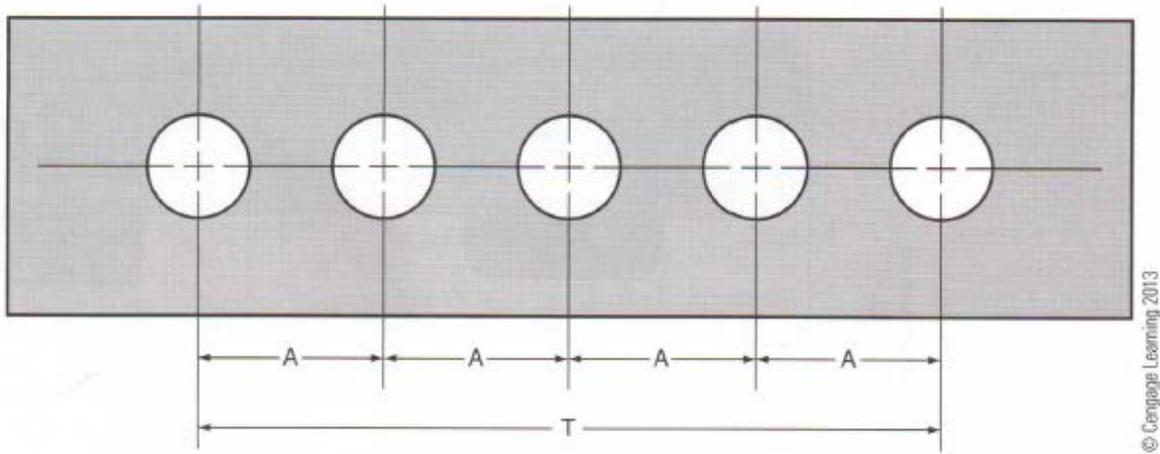
5.)  $x + 6 = 52$

6.)  $26 = 11.6 + y$

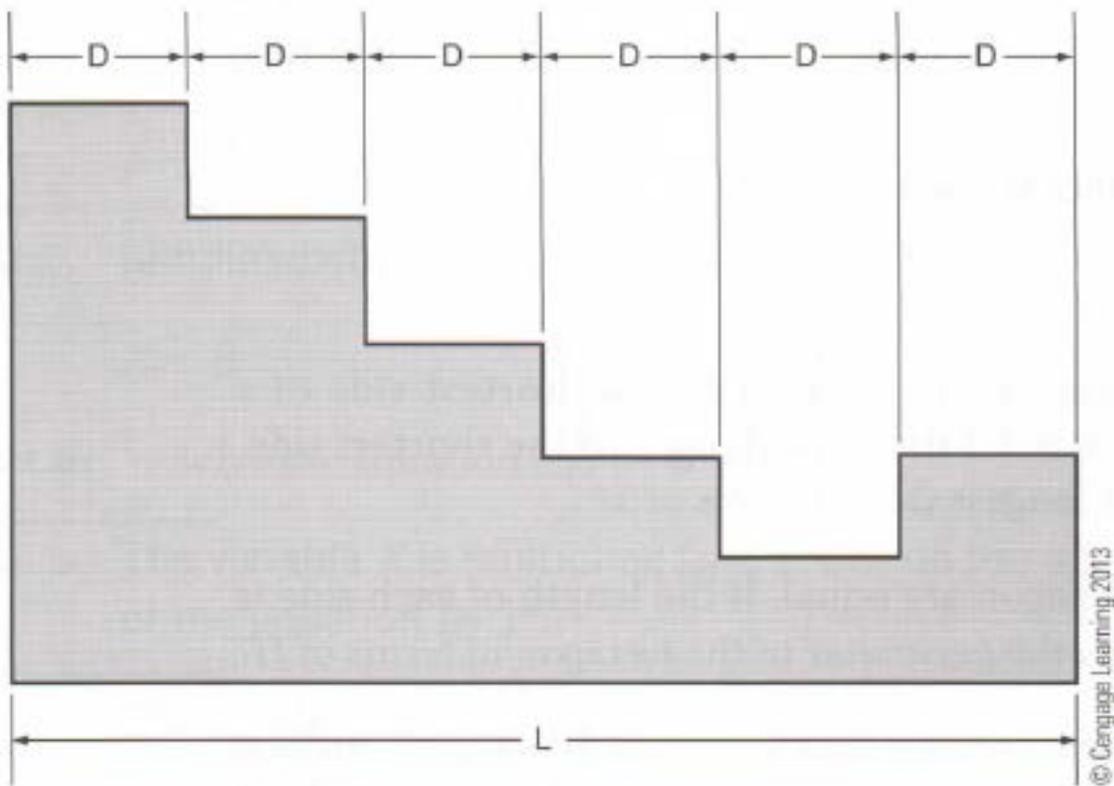
7.)  $8Z - 4Z = 34$

8.) The expression  $7x$  represent the length of the shortest side of a triangle. The longest side is 2.9 times the length of the shortest side. What is the length of the longest side in terms of  $x$ ?

9.) Express the length of dimension A on this strap in terms of dimension T.



10.) Express the length of dimension L on this template in terms of dimension D.



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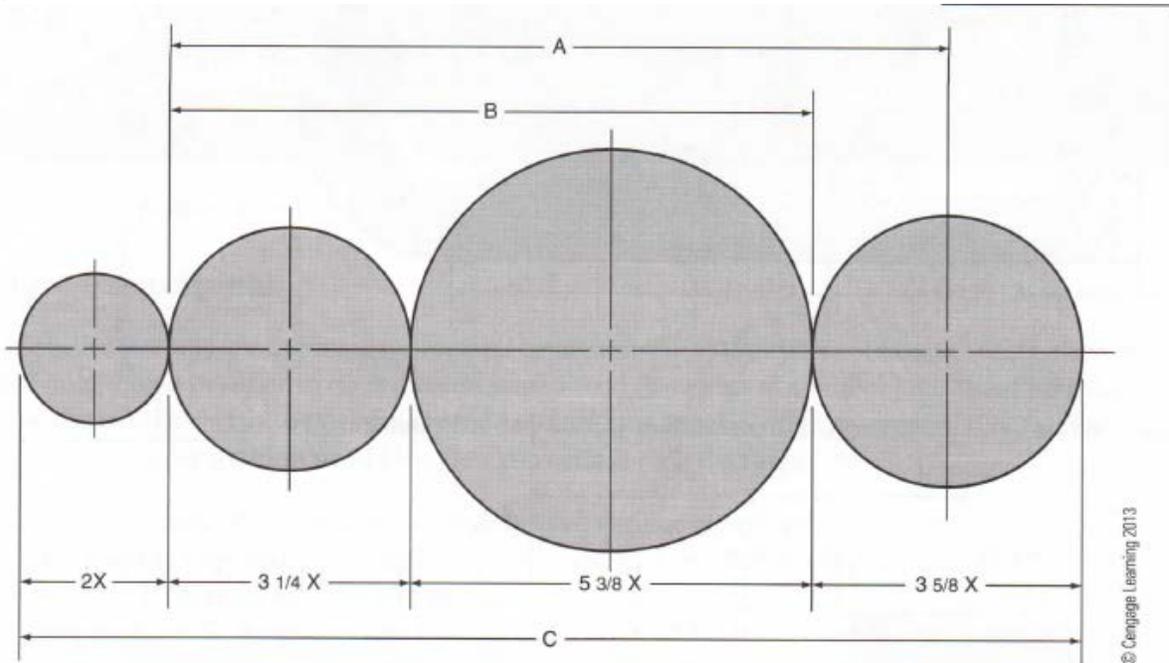
**Expression and Equations  
Homework – Due 5/4/15**

1.) The sides of a regular hexagon are equal. If the length of each side is express as  $9.5H$ , what is the perimeter of the hexagon in terms of  $H$ ?

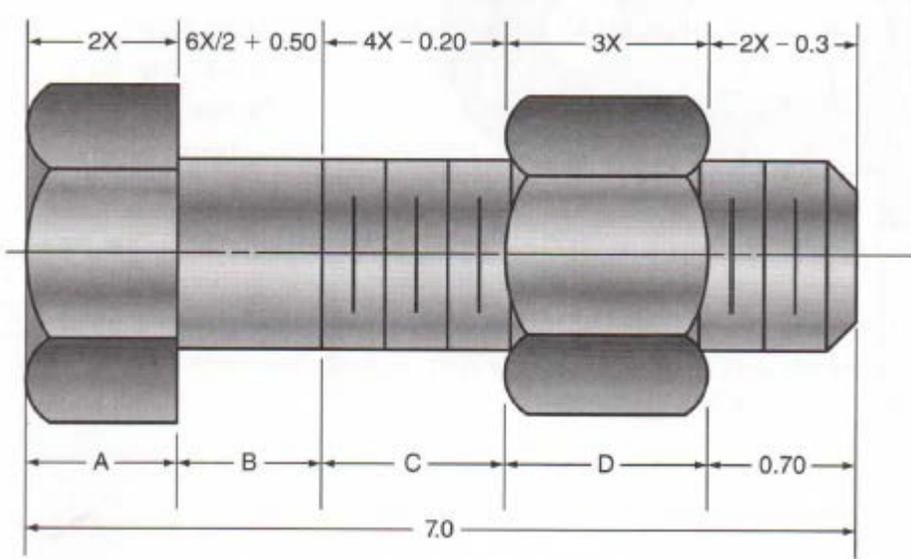
2.) The circumference  $C$  of the circular base of a cylinder is 21.87 inches. What is  $D$ , the diameter of the base, to the nearest hundredth inch?

3.) The width of a rectangle is  $24\frac{3}{8}$  inches. Its length is  $17\frac{3}{16}$  inches longer than its width. What is  $L$  in inches?

4.) The dimensions on the CAD figure below are expressed in terms of the variable  $X$ . Express dimensions  $A$ ,  $B$ , and  $C$  in terms of  $X$ .



5.) Calculate the value of X in the CAD drawing of the bolt and nut below. Then use the value of X to calculate dimensions A, B, C, and D.



6.) In this CAD illustration, dimension B is 1.35. What is dimension Z?

