Name _____ MTH 098 – Introduction to Algebra
Date _____ Class #15B

Unit #5 Test B

Quality – Accuracy – Transfer – 100%

Section 1. Quadratic Equations – Solving and Checking.

1. Solve and Check: $x^2 - 5x = 24$ 1. _____

2. Solve and Check the Following:

a. $\frac{t}{4} - \frac{t}{5} = 1$ a. _____

b. $\frac{x-5}{30} = \frac{4}{5} - \frac{x-1}{10}$ b. _____

Section 2. Word Problems – Rate and Work:

Choose on of the two problems in this section (8 or 9) to answer but not both. If both are answered, only the first one (#8) will be corrected for points.

3. Mr. Flynn drove can clean out his garage by himself in 4 hours. His teenaged son, Thad, can clean the garage by himself in 10 hours. How long will it take the two of them, working as Father and Son together, to clean out the garage.

Person	Unit of Work	Time	Total Work
Mr. Flynn			
Thad			

4. Sean can mow a lawn in 20 minutes. Bob can mow the same lawn in 30 minutes. If they work together, how long will it take them to get the lawn done and complete the job?

Worker	(part of job) per minute	(min) time of work	(part of job) Work Done

Section 3. Radicals and Radical Simplification.

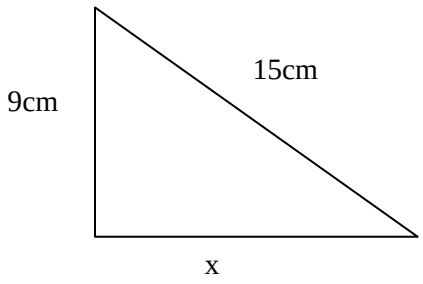
5. $\sqrt{20x^3}$ _____ _____ 5. `_____

6. $\sqrt{12a^4b^7}$ _____ _____ 6. `_____

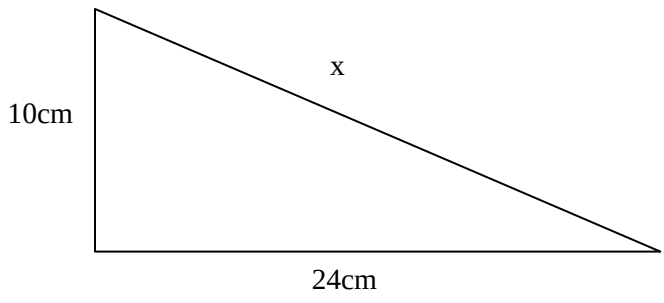
7. $\sqrt{75x^6y^9}$ _____ _____ 7. `_____

Section 4. The Pythagorean Theorem: All answers to be in simplest radical form.

8. Use the Pythagorean Theorem to Solve for the Missing Side: 8. _____



9. Use the Pythagorean Theorem to Solve for the Missing Side: 9. _____



Section 5. The Distance Formula.

10. Use the distance formula to find the distance between the following points sets. All answers should be in lowest terms.

a. Write the Distance Formula (2 Points) _____

b. Find the distance between the points $A(-16, 5)$ *and* $B(-6, -5)$

c. Find the distance between the points $C(3, -15)$ *and* $D(-4, 9)$