Name_____ Per_____

Unit 2 Corrective Assignment

Rewrite the given statement into if-then form. Then tell what the converse, inverse, contrapositive is. 1pt each

1. All Algebros stink.

   a. If-Then Conditional statement:_____

   b. Hypothesis: _____

   c. Conclusion: _____

   d. Converse: _____

   e. Inverse: _____

   f. Contrapositive: _____

Determine the truth-value for the following statements. If a statement if false, give a counter example. 1pt each

2. If a number is divisible by 12, it is divisible by 5.

3. If you have a pet, you have a fish.

4. If you have Mr. Brust, you go to Ramstein HS.

5. If you like hamburgers, you like McDonalds.

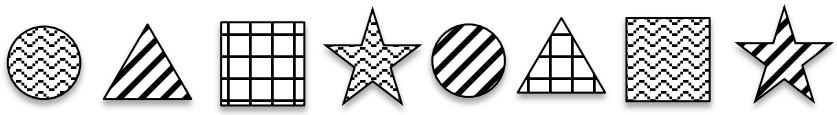
Find a pattern for each sequence. Use the pattern to find the next two terms. 2pts each

6. 6, 11, 16, 21…

7. 12, 15, 18, 21, 24…

8. 1, 1, 2, 3, 5, 8, 13 …

Use the sequence and inductive reasoning to make a conjecture: 2pts each



9. What pattern is in the 29^{th} figure?

10. What is the shape of the 21^{th} figure?

Give a logical conclusion and support with a valid reason. 1pt each

11. Given: $x + 5 = -5$

Conclusion:_____

Reason:_____

12. Given: $2x - 5x = 30$

Conclusion:_____

Reason:_____

13. Given: $-x = 12$

Conclusion:_____

Reason:_____

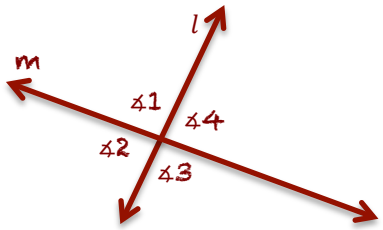
Given: $2(2x - 3) + 1 = 29 + 5x$ Prove: $x = -34$

#14 (Proof)

1pt each

Statement	Reason
1. $2(2x - 3) + 1 = 29 + 5x$	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.

Unit 2 Application



Given: ∡2 ≅ ∡1
Prove: ∡3 ≅ ∡4

2pts each

#15 (Proof)

Statement	Reason
1. ∡2 ≅ ∡1	1. Given
2. ∡2 ≅ ∡4	2.
3.	3. Vertical angles are congruent
4. ∡4 ≅ ∡3	4. (Steps 1,2,)
5.	5.
6.	6.

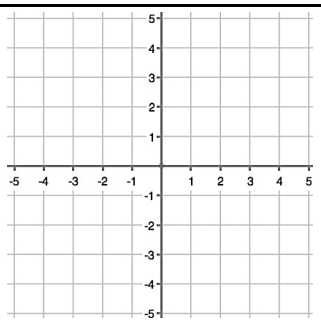
Algebra Review

½pt each

Solve each equation for x!		Multiply!	Factor!
1. $3x - 1 = 17$	2. $3x - 2 = 20x - 19$	3. $4x(x - 5)$	4. $12x^2 - 6x$

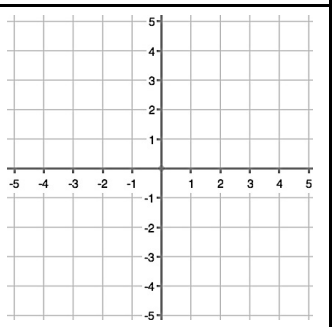
5. Graph the equation:

$y = 1 - 3x$



6. Graph the equation:

$x = 3$



Name_____ Per_____

Unit 2 Corrective Assignment Solutions

Rewrite the given statement into if-then form. Then tell what the converse, inverse, contrapositive is.

1. All Algebros stink.

   a. If a person is an Algebro, then that person stinks.

   b. If a person is an Algebro then that person stinks.

   c. If a person stinks, then that person is an Algebro.

   d. If a person is not an Algebro, then that person does not stink.

   e. If a person does not stinks, then that person is not an Algebro.

2. False (12 is divisible by 12 by not 5.)

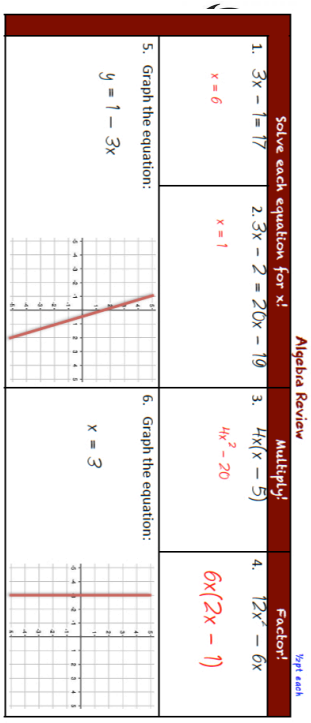
3. False (You could have a pot-bellied pig)

4. True. (Unless you argue that there is a different Mr. Brust in a different school.)

5. False (You might like Burger King hamburgers but not McDonalds.)

6. 26, 31 7. 27, 30 8. 21, 34 (add two previous terms)

9. ////// 10. Circle **11. x = -10, subtraction** **12.** -3x = 30, Combime Like Term



13. Given: x = 12, Div property

Given: $2(2x - 3) + 1 = 29 + 5x$ Prove: $x = -34$

#14 (Proof)

Statement	Reason (1pt each)
1. $2(2x - 3) + 1 = 29 + 5x$	1. Given
2. $4x - 6 + 1 = 29 + 5x$	2. Distributive Property
3. $4x - 5 = 29 + 5x$	3. Combine Like Terms
4. $-5 = 29 + x$	4. Subtraction Property
5. $-34 = x$	5. Subtraction Property
6. $x = -34$	6. Symmetric Property

#15 (Proof)

Statement	Reason
1. ∡2 ≅ ∡1	1. Given
2. ∡2 ≅ ∡4	2. Vertical Angles are congruent
3. ∡1 ≅ ∡3	3. Vertical angles are congruent
4. ∡4 ≅ ∡1	4. Substitution Property (Steps 1,2)
5. ∡4 ≅ ∡3	5. Substitution Property (Steps 3, 4)
6. ∡3 ≅ ∡4	6. Symmetric Property