

Write your questions here!

To the video!



More proofs! This time, no "fill in the blanks."

Important Properties for Proofs

Addition Property	Reflexive Property	Substitution Property
Subtraction Property	Symmetric Property	Combining Like Terms
Multiplication Property	Transitive Property	Simplification
Division Property	Distributive Property	All right angles \cong
Angle Addition Postulate	Vertical Angles are \cong	Segment Addition Postulate
"Definition of _____" (Bisector, Midpoint, Complementary, Supplementary, etc.)		

This list will grow as we continue through Geometry this year.

Directions: Complete the following proofs.

Given: $-100 - (4x - 2) = -94$
 Prove: $x = -1$

Example #1

Statement	Reason
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

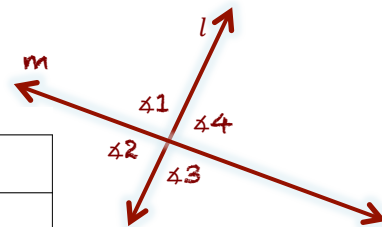
Remember, the first statement will always be the given while the last statement should always be what you need to prove.

PACKET 2.3: WRITING PROOFS

Write your questions here!

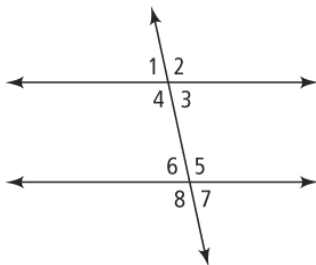
Example #2

Statement	Reason
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.



Given: $\angle 1 \cong \angle 4$
 Prove: $\angle 2 \cong \angle 3$

Example #3

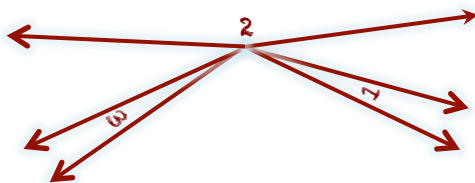


Statement	Reason
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

Given: $\angle 2 \cong \angle 5$
 Prove: $\angle 4 \cong \angle 8$

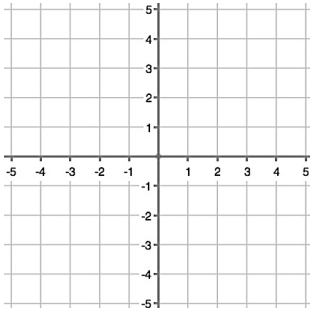
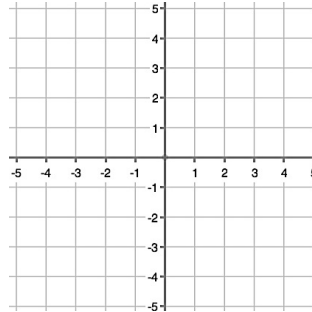
Example #4

1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.



Given: $\angle 1$ and $\angle 2$ are supplementary
 $\angle 2$ and $\angle 3$ are supplementary
 Prove: $\angle 1 \cong \angle 3$

Now, summarize your notes here!

Solve each equation for x!		Multiply!	Factor!
1. $12x - 3 = -3$	2. $5x + -2 = 3x - 4$	3. $2x(2x - 1)$	4. $3x^2 - 12x$
5. Graph the equation: $y = 4 - x$		6. Graph the equation: $x = -3$	

Practice 2.3: Writing Proofs

Support each statement by writing a conclusion with a valid reason.

- | | | |
|---------------------|--|--|
| 1. Given: $2x = 72$ | 2. Given: $\sphericalangle A$ and $\sphericalangle B$ are rt. angles | 3. Given: X is the midpoint of \overline{DR} |
| Conclusion: _____ | Conclusion: _____ | Conclusion: _____ |
| Reason: _____ | Reason: _____ | Reason: _____ |

Directions: Complete the following proofs.

Given: $10x + 4 = 44$	Prove: $x = 4$
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	Statement	Reason
Proof #1	1.	1.
	2.	2.
	3.	3.

Given: $1 - x = 11$	Prove: $x = -10$
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	Statement	Reason
Proof #2	1.	1.
	2.	2.
	3.	3.

Given: $10x + 42 = 20 - x$	Prove: $x = -2$
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	Statement	Reason
Proof #3	1.	1.
	2.	2.
	3.	3.
	4.	4.

Given: $6x - (4x - 1) = 2$	Prove: $x = 1/2$
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	Statement	Reason
Proof #4	1.	1.
	2.	2.
	3.	3.
	4.	4.
	5.	5.

4 | PACKET 2.3: WRITING PROOFS

Given: $13 - 4(x - 2) - 41 = 0$

Prove: $x = -5$

Proof #5

Statement	Reason
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.

Application 2.3: Introduction To Proofs

Given: $-3(4 - x) = 12$

Prove: $x = 8$

Proof #1

Statement	Reason
1.	1.
2.	2.
3.	3.
4.	4.

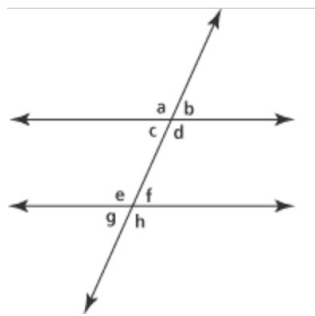
Support each statement by writing a conclusion with a valid reason.

2. Given: $30x = 300$

Conclusion: _____

Reason: _____

Proof #3



Given: $\angle b \cong \angle g$
 Prove: $\angle f \cong \angle c$

Statement	Reason
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.