Ch 2.4 Vertical Angles

Activity:
1. Draw 2 intersecting lines with a ruler.
2. Name them $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$
3. Name the point of intersection E.
4. Use a protractor and measure all 4 angles.
5. What do you notice about those angles?

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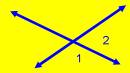
Vertical angles - are non adjacent angles formed by 2 intersecting lines

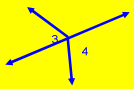
Linear pair - are the 2 adjacent angles formed by intersecting lines.

Ex1) Determine if the 2 angles are a linear pair, vertical angles or neither:

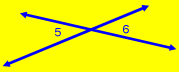
a)



b)



c)



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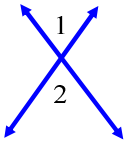
1

A vertical
B linear pair
C neither



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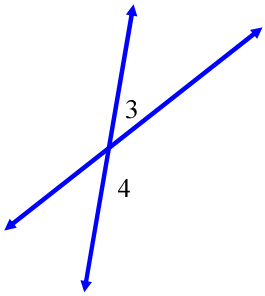
2

A vertical
B linear pair
C neither



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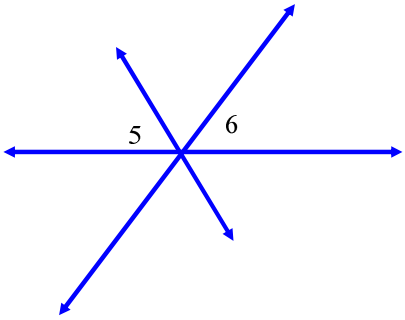
3

A vertical
B linear pair
C neither



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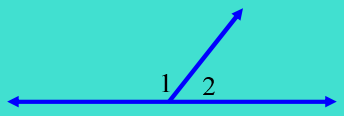
Postulate #7 ***Linear Pair Postulate:***
If 2 angles form a linear pair, then they are supplementary.



Ex2a) $< 1 = 112^0$, what is the m<2?

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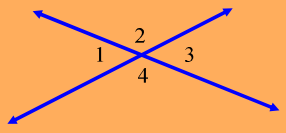
Theorem 2.3 ***Vertical Angles Theorem***:
Vertical angles are congruent.



<1 ≅ <3 and <2 ≅ <4

Ex3a) If m< 1 = 35^0, what does m< 3=?

b) What does m< 2 =?

c) What does m<4?

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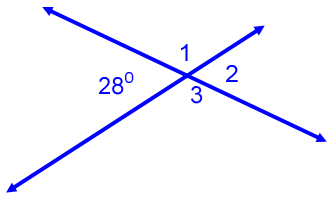
1 What is m<1?



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2 What is the m<2?

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3 What is the m<3?

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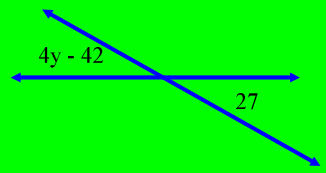
Ex4) Use algebra to find missing angles.



Ex 4a)Solve for y.

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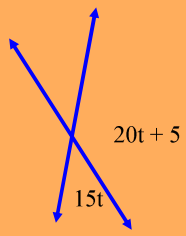
Ex4b) solve for t.



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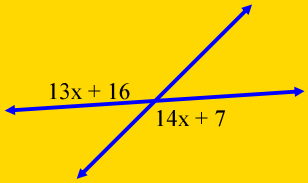
1 Solve for x



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