

QUARTER 1 REVIEW

Chapter 1, 2 and 4

Find the complement of $(x + 25)^\circ$

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$$90 - (x + 25)$$

$$90 - x - 25$$

$$(65 - x)^\circ$$

The measure of an angle is 6 more than twice the measure of the supplement. Find the measure of the supplement of the angle.

* Recall: angle = x
supp = $(180 - x)^\circ$

The measure of an angle is 6 more than twice the measure of the supplement. Find the measure of the supplement of the angle.

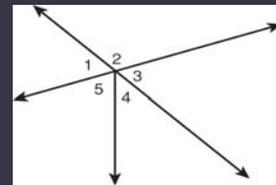
$$x = 2(180 - x) + 6$$

$$x = 360 - 2x + 6 \quad \therefore \text{the supp is}$$

$$3x = 366 \quad 180 - 122$$

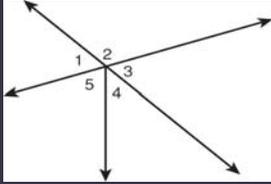
$$\boxed{x = 122} \quad \boxed{58^\circ}$$

What type of angles are 2 and 3?

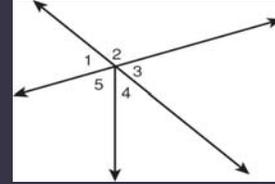


What type of angles are 2 and 3?

Linear Pair
&
adjacent

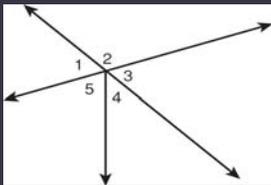


What type of angles are 1 and 5?

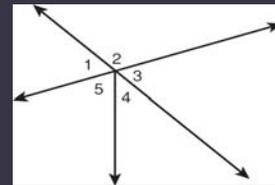


What type of angles are 1 and 5?

adjacent
 \angle 's

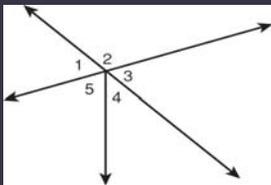


What type of angles are 1 and 3?

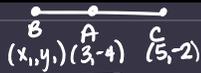


What type of angles are 1 and 3?

vertical
 \angle 's
(so... \cong)



A is the midpoint of BC, the midpoint A has coordinates (3, -4) and endpoint C has coordinates (5, -2). Find the coordinates of endpoint B.



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$$x_m = \frac{x_1 + x_2}{2}$$

$$3 = \frac{x_1 + 5}{2}$$

$$6 = x_1 + 5$$

$$1 = x_1$$

$$y_m = \frac{y_1 + y_2}{2}$$

$$-4 = \frac{y_1 + (-2)}{2}$$

$$-8 = y_1 + (-2)$$

$$-6 = y_1$$

B(1, -6)

Find the distance between (3, -4) and (5, -2).

Question 12

Find the distance between (3, -4) and (5, -2).

$$D = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$$= \sqrt{(5 - 3)^2 + (-2 - (-4))^2}$$

$$= \sqrt{2^2 + 2^2}$$

$$= \sqrt{8} = 2\sqrt{2}$$

Find the next two terms in the pattern:

-7, -3, 1, 5...

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ANSWER:
9 & 13

Determine if the conjecture is true. If false, give a counterexample.

If $x^2 = 25$, then $x = 5$.

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If $x^2 = 25$, then $x = 5$.

ANSWER:
FALSE. Let $x = -5$

Write the **CONVERSE** of the following conditional statement:

If two angles are congruent, then their measures are equal.

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ANSWER:
If two angle measures are equal, then the angles are congruent.

Write the **BICONDITIONAL** for the following conditional statement:

If a point is a midpoint, then it divides the segment into two congruent segments.

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If a point is a midpoint, then it divides the segment into two congruent segments.

ANSWER:
A point is a midpoint if and only if it divides the segment into two congruent segments.

Use the Law of syllogism to draw a conclusion from the following:

If Sally goes to bed early, then she will not get sick.

If Sally eats an apple, then her mom will be happy.

If her mom is happy, then Sally goes to bed early.

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If Sally goes to bed early, then she will not get sick.
 If Sally eats an apple, then her mom will be happy.
 If her mom is happy, then Sally goes to bed early.

**Conclusion: If Sally eats an apple,
 then she will not get sick.**

What Property?!?!

$AB \cong CD$ and $CD \cong EF$, so $AB \cong EF$.

Transitive Property

$AB \cong CD$ and $CD \cong EF$, so $AB \cong EF$.

What Property?!?

If $\angle 1$ is supplementary to $\angle 2$ and $\angle 2 \cong \angle 3$, then $\angle 1$ is supplementary to $\angle 3$.

Substitution Property

If $\angle 1$ is supplementary to $\angle 2$ and $\angle 2 \cong \angle 3$, then $\angle 1$ is supplementary to $\angle 3$.

What Property?!?

$AB = BA$

Reflexive Property!

$$AB = BA$$