

CODE RED – DO NOW

Complete Problems #1-4 G.1b

Let p = Two angles are vertical angles.
 Let q = The angles are congruent.

- Write the symbolic form: If two angles are congruent, then the angles are vertical angles
- Write the symbolic form: Two angles are not vertical angles and two angles are congruent
- Write in words: $p \leftrightarrow q$
- Write in words: $\sim q \vee \sim p$

G.5 REVIEW

SOL G.5.ABCD
 LEARNING TARGET: BY THE END OF CLASS TODAY, I WILL BE ABLE TO ORDER THE ANGLES AND SIDES OF A TRIANGLE, DETERMINE WHETHER A TRIANGLE EXISTS, AND DETERMINE THE RANGE OF THE THIRD SIDE OF A TRIANGLE BY SCORING AT LEAST A 77%.
 ESSENTIAL QUESTION: WHAT ANGLE/SIDE RELATIONSHIPS CAN HELP ME UNDERSTAND THE DIMENSIONS OF A TRIANGLE?

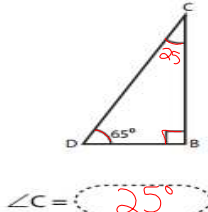
TODAY'S AGENDA

- ✓ DO NOW
- ✓ Triangle Facts Review
- ✓ KAHOOT!
- ✓ Partner Practice
- ✓ G.5 Quiz

CODE YELLOW

Triangle Facts

The three angles of a triangle add up to **180°**



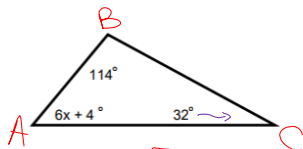
$$\begin{array}{r} 90 \\ + 65 \\ \hline 155 \end{array}$$

$$\begin{array}{r} 180 \\ - 155 \\ \hline 25 \end{array}$$

$\angle C = 25^\circ$

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Solve for x



$$6x + 4 + 114 + 32 = 180$$

$$6x + 150 = 180$$

$$6x = 30$$

$$\frac{6x}{6} = \frac{30}{6}$$

$$x = 5$$

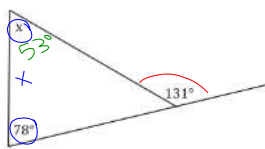
$$6(5) + 4 = 34$$

$$\angle A = 34^\circ$$

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Triangle Facts

The measure of an exterior angle of a triangle is equal to the sum of the other two interior angles.



$$131 = x + 78$$

$$-78 \quad -78$$

$$53 = x$$

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$2x+12=47+x+15$

$x=50$
 $\angle A=65^\circ$

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Triangle Facts

The biggest side is always opposite the biggest angle.

Order the **angles** from greatest to least

$\angle D$	Sides	EF
$\angle E$		DF
$\angle F$		ED

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Triangle Facts

The biggest side is always opposite the biggest angle.

Which side is shortest?

Which angles are farthest apart?

$\angle W + \angle Y$

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For each triangle, list the sides in order from shortest to longest.

16. $\overline{AB}, \overline{AC}, \overline{BC}$ 17. $\overline{EF}, \overline{DE}, \overline{DF}$ 18. $\overline{HG}, \overline{GH}, \overline{GI}$

Order the angles in each triangle from smallest to largest.

1) $\angle J, \angle L, \angle K$ 2) $\angle L, \angle M, \angle K$

3) In $\triangle RQP$
 $QP = 15$ ft
 $RP = 25$ ft
 $RQ = 13$ ft

$\angle P, \angle R, \angle Q$

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Triangle Facts

The longest side of a triangle must be less than the other two sides added together.

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Can you draw a triangle using these lengths for the sides?

A. 5, 7, 9 Y

B. 3, 4, 1 N

C. 3, 4, 7 N

D. 7, 7, 7 Y

E. 7, 7, 14 N

F. 7, 7, 0.01 Y

G. 12, 2.2, 14.3 N

H. 5.2, 5.5, 10.1 Y

CODE YELLOW**Triangle Facts**

When given two side lengths, the range for the third side is between the difference and the sum of the two numbers.

$$\begin{array}{r} 12 \\ -6 \\ \hline 6 \end{array} \quad \begin{array}{l} 6 \text{ in } 12 \text{ in} \\ \\ \\ \end{array} \quad \begin{array}{r} 12 \\ +6 \\ \hline 18 \end{array}$$

$$\frac{6}{\text{Diff}} < x < \frac{18}{\text{Sum}}$$

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The measure of two sides of a triangle are given. Between what two numbers must the measure of the third side fall?

A. 15 and 20**B. 14 and 24**

$\underline{5} < x < \underline{35}$

$\underline{10} < x < \underline{38}$

C. 22 and 34**D. 8 and 9**

$\underline{12} < x < \underline{56}$

$\underline{1} < x < \underline{17}$

CODE BLUE***KAHOOT!!*****CODE GREEN*****Partner
Practice*****CODE RED – QUIZ****G.5 Quiz**

Complete your QUIZ silently and independently at your seat. Remember to do your best and TRY every problem.

When you are finished, raise your hand and Coach Riddick will come around to collect it.