

Mr. Svarc's Missing \$ Problem...REALLY???

Two men were selling Atlantic Salmon Flies: one man sold 3 flies per dollar and the other man sold 2 flies per dollar.

One day they were both away so they each left 30 flies with a friend. To simplify the reckoning, the friend decided to sell 5 flies for 2 dollars. They sold them all and took in 24 dollars.

When it came to dividing up the sales between the owners...a problem arose. The one who had 30 flies at 3 for a dollar wanted \$10. The other who had 30 flies at 2 for a dollar wanted \$15. In total this made \$25.

The friend only made \$24 which means that they are a dollar short.

WHAT HAPPENED TO THE MISSING DOLLAR???

Old MacDonald's Last Wishes...

Old MacDonald had 17 cows. He died. His will said...

The first daughter Malia gets $\frac{1}{2}$ of the cows.

The second daughter Lainey gets $\frac{1}{3}$ of the cows.

The third daughter Janna gets $\frac{1}{9}$ of the cows.

The daughters could not figure out how to divide the cows.

Mr. Hallihan wanted to help so he loaned a cow to them.

Then the first daughter took $\frac{1}{2}$ of 18 cows = 9 cows.

The second daughter took $\frac{1}{3}$ of 18 or 6 cows.

The third daughter took $\frac{1}{9}$ of 18 or 2 cows.

That makes $9 + 6 + 2 = 17$ cows. So Mr. Hallihan took his cow back home.

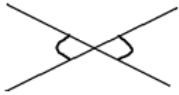


Explain???

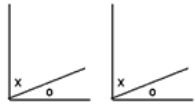
GEOMETRY THEOREMS...

• **ANGLE THEOREMS:**

Notes - Geometry Theorems.doc

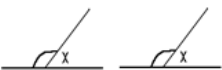


(OAT) **Opposite Angle Theorem** → If two lines intersect then the opposite angles are equal.



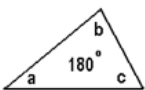
(CAT) **Complementary Angle Theorem** → If two angles are equal, then their complements are equal.

Note: Complementary angles sum to 90° .



(SAT) **Supplementary Angle Theorem** → If two angles are equal, then their supplements are equal.

Note: Supplementary angles sum to 180° .



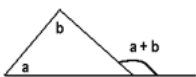
(SATT) **Sum of the Angles of a Triangle Theorem** → The sum of the interior angles of a triangle is 180° .

Note: When two angles of one triangle are respectively equal to two angles of another triangle, the third angles are equal.



(ITT) **Isosceles Triangle Theorem** → The angles opposite the equal sides are equal.

Note: Isosceles triangles have 2 equal sides.



(EAT) **Exterior Angle Theorem** → An exterior angle of a triangle is equal to the sum of the interior and non-adjacent angles.

• **TRANSVERSAL PARALLEL THEOREMS:**



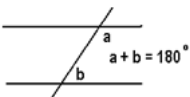
(AIA) **Alternate Interior Angles** → When a transversal intersects a set of parallel lines, the alternate interior angles are equal.

Note: "Z" pattern



(CA) **Corresponding Angles** → When a transversal intersects a set of parallel lines, the corresponding angles are equal.

Note: "F" pattern

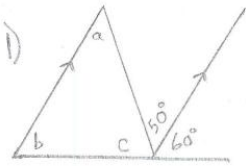


(CIA) **Co-Interior Angles** → When a transversal intersects a set of parallel lines, the co-interior angles sum to 180° .

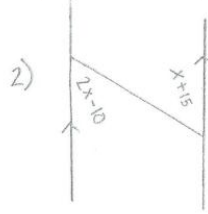
Note: "C" pattern

Inclass assignment

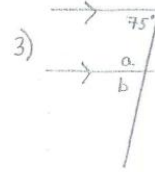
Assignment - Angle Properties Oct. 2014.pdf Name: _____



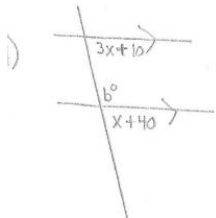
$\angle a = \underline{\hspace{1cm}} (\quad)$
 $\angle b = \underline{\hspace{1cm}} (\quad)$
 $\angle c = \underline{\hspace{1cm}} (\quad)$



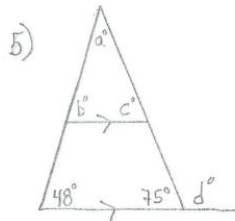
$x = \underline{\hspace{1cm}} (\quad)$ $\angle a = \underline{\hspace{1cm}} (\quad)$
 $2x - 10 = \underline{\hspace{1cm}}$
 $x + 15 = \underline{\hspace{1cm}}$



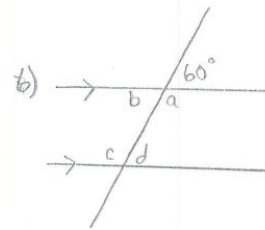
$\angle a = \underline{\hspace{1cm}} (\quad)$
 $\angle b = \underline{\hspace{1cm}} (\quad)$



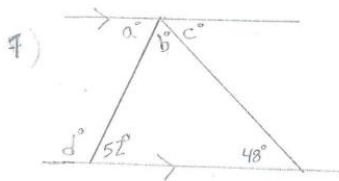
$x = \underline{\hspace{1cm}}$
 $3x + 10 = \underline{\hspace{1cm}}$
 $x + 40 = \underline{\hspace{1cm}}$
 $\angle b = \underline{\hspace{1cm}}$



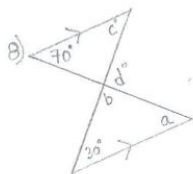
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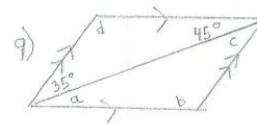
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Attachments

Notes - Geometry Theorems.doc

Assignment - Angle Properties Oct. 2014.pdf