Old MacDonald's Last Wishes...

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

The first daughter Malia gets 1/2 of the cows. $\frac{1}{2} + \frac{1}{3} + \frac{1}{9}$

The second daughter Lainey gets 1/3 of the cows.

The third daughter Janna gets 1/9 of the cows. $\frac{9+6+2}{18}$

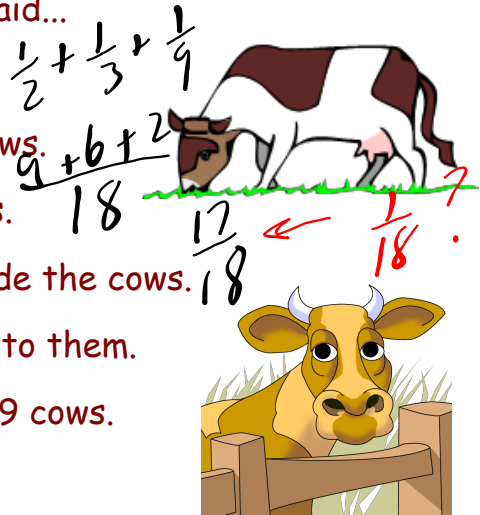The daughters could not figure out how to divide the cows. $\frac{17}{18}$ $\frac{1}{18}$

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

Then the first daughter took 1/2 of 18 cows = 9 cows.

The second daughter took 1/3 of 18 or 6 cows.

The third daughter took 1/9 of 18 or 2 cows.

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

Explain???

```
        .0065359477
(9/17-1/2)+(6/17
-1/3)+(2/17-1/9)
        .0555555556
Ans▶Frac
                1/18
```

extra from the loan cow

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???

$$10 \times \tfrac{\$}{2} = \$20$$

$$\left. \begin{array}{c} \$10 \\ + \$4 \end{array} \right\} \$14$$

$$2 \times \tfrac{\$}{2} = \$2^{x}$$
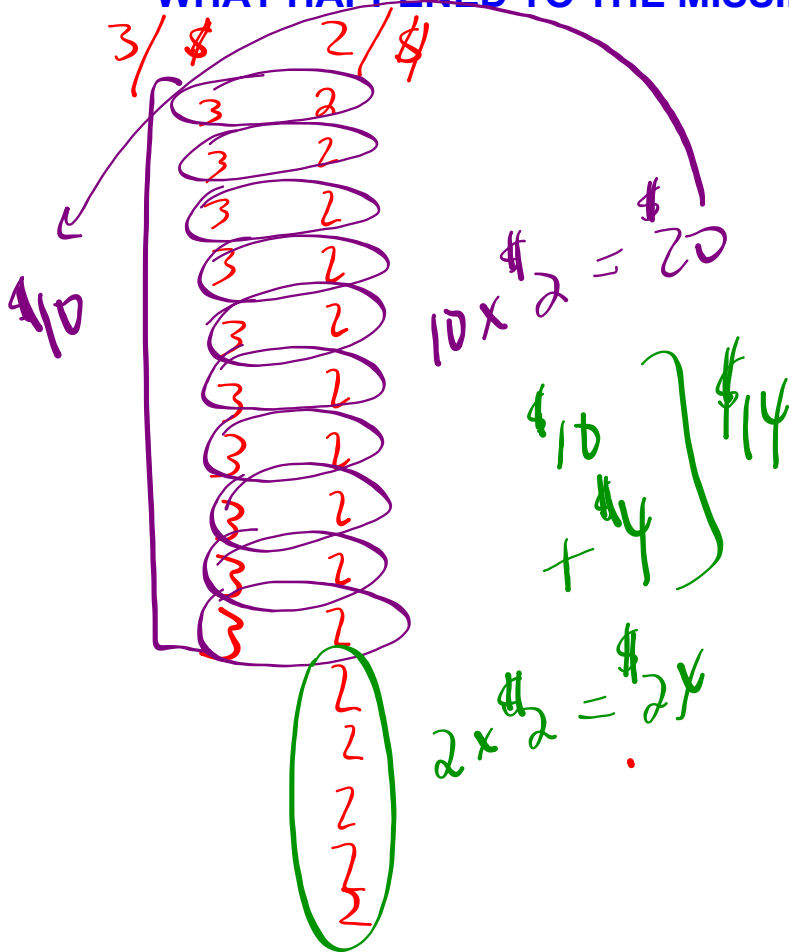
Notes - Geometry Theorems.doc

*** Now that the notes are taken care of...

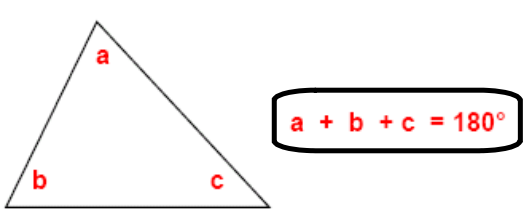REVIEW??? GMF 10 - Angle Properties

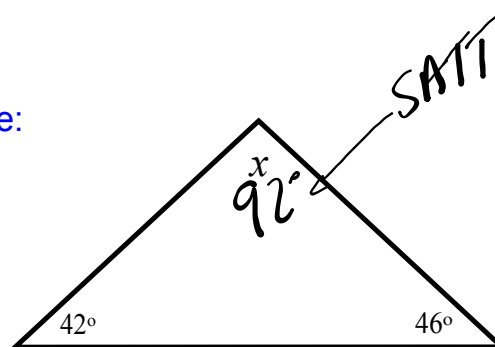We better do some examples to <u>UNDERSTAND</u> these BIG ideas!!!

Geometry Theorems...

Triangle Angle Sum Theorem:

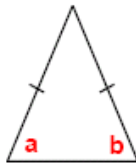The sum of the interior angles of any triangle is 180°.

a

$$a + b + c = 180°$$

b   c

Example:

x

92°

SATT

42º   46º

Isosceles Triangle Theorem:

In an isosceles triangle, the base angles are equal.

The two angles that are opposite to the equal sides.

$a = b$

a   b

EXAMPLES...

1)

$\frac{190-50}{2}$

$65°$

Y

50°

$a\,65$ 65

X   Z

ITT

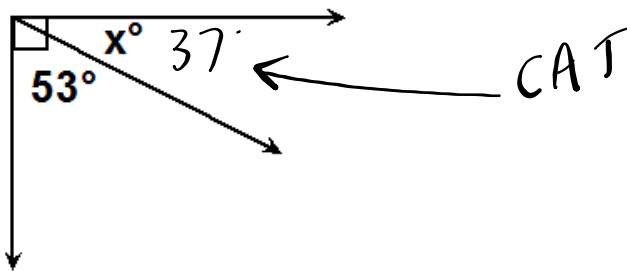$\frac{ITT}{2}$

SaTT

2)

b

140

20   20
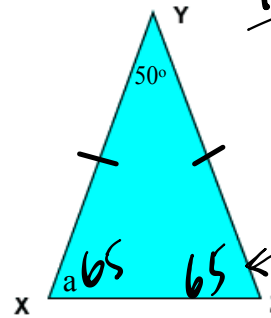
- ## **Complementary Angles:**
    Two or more angles that have a sum of 90º.

Examples:

(1) What is the complement of a 50º angle? 40'
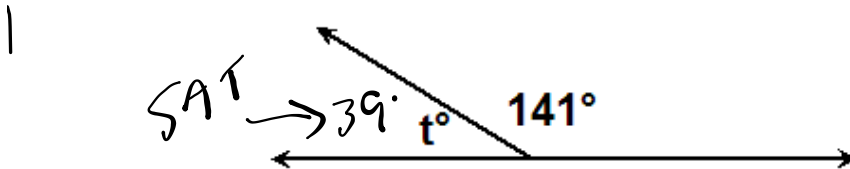
(2) Determine the measure of the missing angle.

x° 37'

53°

CAT

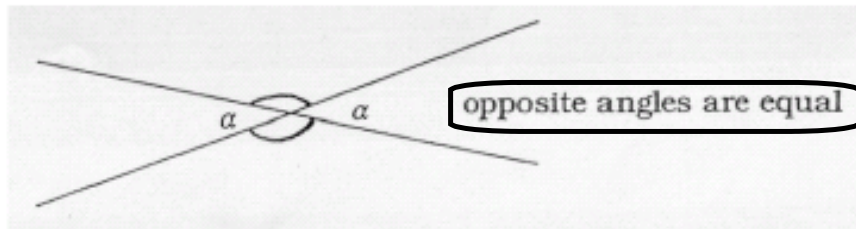- ## **Supplementary Angles**:
    Two or more angles that have a sum of 180º.
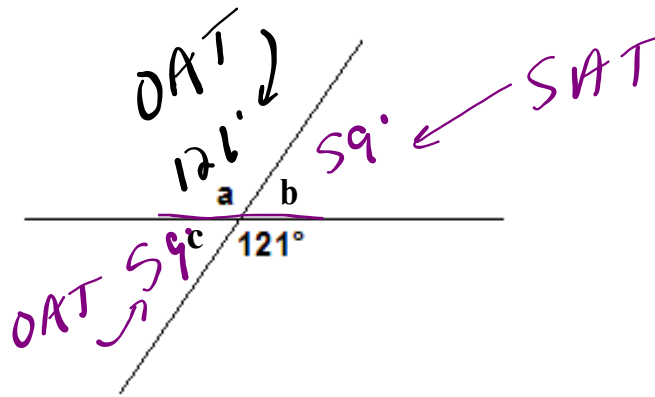
Examples:

SAT →39' t° 141°

Opposite Angle Theorem...

When 2 straight lines cross, 2 pairs of opposite angles are formed. Opposite angles are equal in size
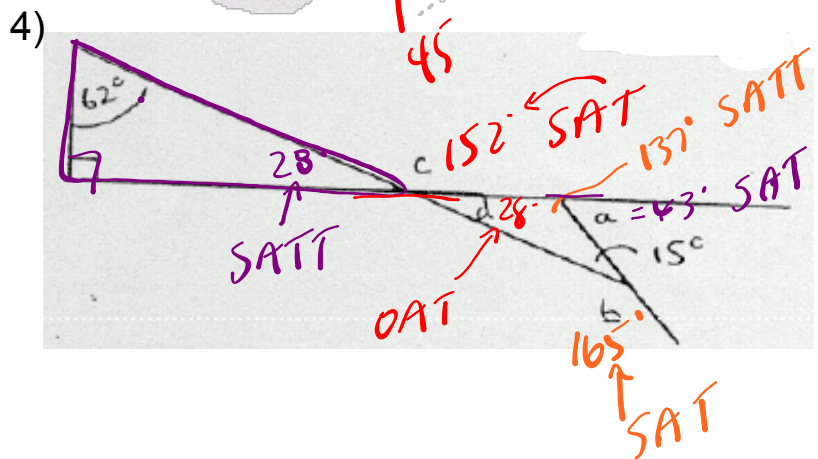

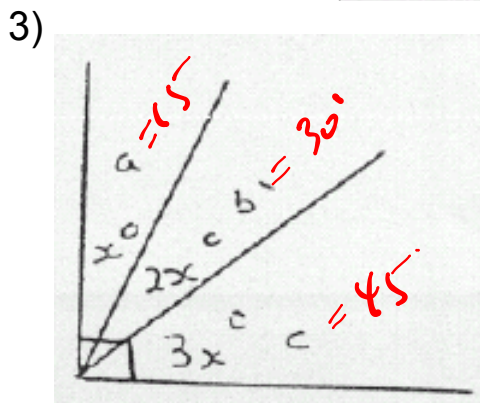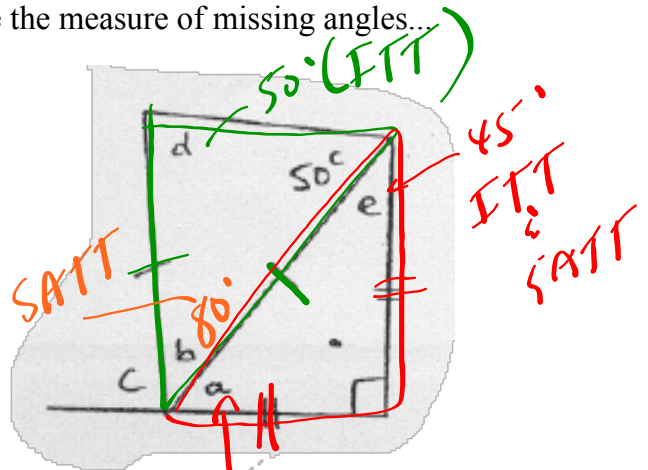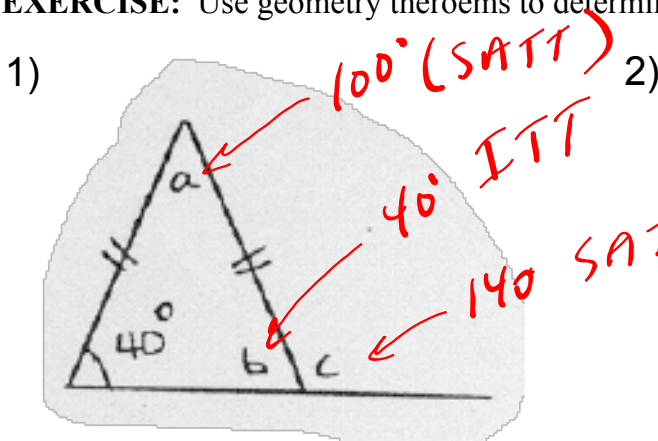opposite angles are equal

In geometry, angles or lines marked with the same symbol are the same size.

Example:

OAT

121°

121° ↲

a

b

59° ← SAT

c

59°

121°

OAT 59° ↗

EXERCISE: Use geometry theroems to determine the measure of missing angles...

1)

$100°$ (SATT)

$40°$ ITT

140 SAT

2)

$50°$ (ITT)

$45°$ ITT

SATT

$80°$ SATT

$50°$

45

3)

$a = 15$

$b = 30°$

$c = 45$

$2x$

$3x$

$x + 2x + 3x = 6x$

$6x = 90°$

$90°$

$$\frac{6x}{6} = \frac{90°}{6}$$

$x = 15°$ CAT

4)

$62°$

28

c $152°$ SAT

$137°$ SATT

$a = 63°$ SAT

$15°$

SATT

$28°$

OAT

$165°$

SAT

C)

50° SATT

55°

40°

x° 75 SATT

50° y°

AIA Find $x°$ and $y°$.

D)

(4X-24) °

108°

72 °
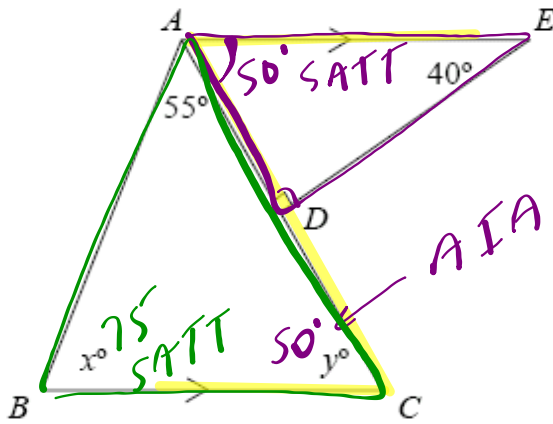
$4x - 24 = 108$

$4x = 108 + 24$

$4x = \dfrac{132}{4}$

CA

$x = \underline{\quad 33° \quad}$
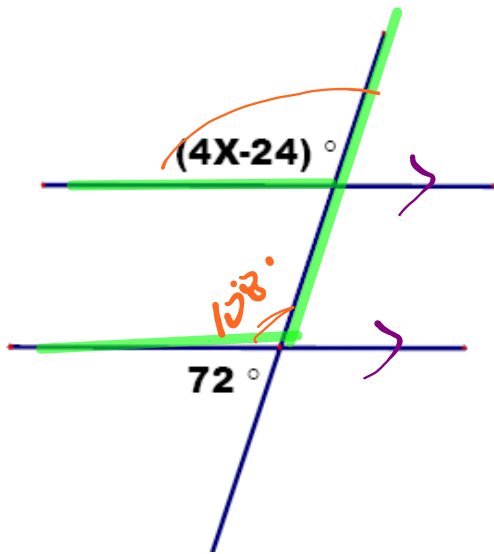
Homework...

p. 72: #2

p. 78: #1, 4, 15

Revisit Friday's Sheet

Attachments

Notes - Geometry Theorems.doc