Dear Fellow Educator,

Attached are three assignment sheets that are used in the later part of the <u>Home</u> <u>Repair</u> course that I teach at New Berlin West High School. They are used to give the students experiences in planning and budgeting for a Do - It - Yourself project in the home.

I have also attached a copy of the course Syllabus that is used in the course.

Sincerely,

Dick Zalud

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HOME IMPROVEMENT ? REMODELING

Information / Solutions / Formulas / Problems

Symbols used:

"	=	inch
'	=	feet
ft.	=	feet
yd.	=	yard
sq.	=	square
/	=	per
O.C.	=	on center

Sheet Materials:

May include

plywood, paneling, gypsum (plaster) board

Common thicknesses
1/4, 3/8, 1/2, 3/4 (inches)

Size
4 x 8 feet
32 sq. ft. / sheet

SPECIAL NOTES

perimeter - is the distance around a room measured at floor
level including all walls. (measured in feet)

area - the total wall surface of a room, found by multiplying
the perimeter times the wall height.

could also be the floor area of a room, found by
multiplying lenght times width

(measured in square feet)

rounding - always round off gallons of liquids, rolls, etc., to
the next highest whole number

Linear materials:

common materials
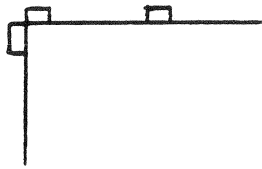
furring strip 1" x 2" x 8'

dimension lumber 2" x 4" x 8' , etc.

finish lumber

SPECIAL NOTES

When using furring strips for attaching paneling, they
are placed on both sides of corners and 24" apart.

(see example)

Studs made from 2" x 4" x 8' lumber are normally
spaced 16" O.C.

Paint:

- paint coverage, one gallon covers 400 sq. ft.

- window and door frames equal 1 1/2 sq. ft. / frame

- window and door spaces equal 15 sq. ft. each

paint comes in quarts and gallons

Ceramic Tiling:

- tile size, $4\frac{1}{4}$" x $4\frac{1}{4}$" (approximately 9 / sq. foot)

- mastic adhesive, one gallon covers 50 sq. ft.

- grout, one pound covers 18 sq. ft.

Wallpapering:

- one roll covers 30 sq. ft.

- 15 sq. ft. should be allowed for each window and/or door space
         (2 windows, or 2 doors / roll

- one pound of adhesive hangs 6 rolls

Floor Covering:

- one carton of Asbestos tile covers 45 sq. ft.

- one gallon of adhesive covers 150 sq. ft.

Carpeting:
    usually sold by the square yard
                    1 sq. yd. = 9 sq. ft.

Caulk & adhesives in Tubes
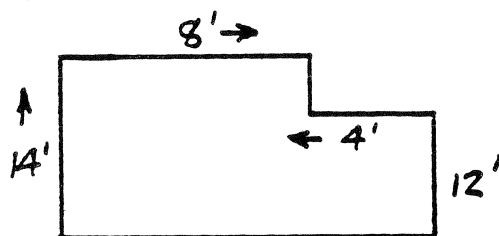   A tube will run a 1/8" x 1/8" bead 96 feet long.

** Show all your Math. set-ups on a clear sheet of paper and attach to this sheet with a staple.

- Find the number of board feet

	No. Pcs.	T	W	L		
1.	6	1"	4"	128"	_____	Bd. Ft.
2.	4	1"	6"	12'	_____	Bd. Ft.
3.	8	1"	10"	15'	_____	Bd. Ft.

- Find the number of square feet of plywood needed to cover all walls.

_____ Sq. Ft.

Room 8' high

How many full sheets of plywood would be needed? (for a partial sheet give a full sheet in your answer)

(32 Sq. Ft. / sheet)

_____ Sheets

How much furring strip (lineal feet) would be needed?

(Note: usually 24" on center , but may be less if needed.)

_____ Feet

HOME IMPROVEMENT WORKSHEET #2

Given:

- A room measuring 12' x 14' x 8' high

- exterior paint costs $5.97/gallon, $4.59/quart

- interior paint costs $11.39/gallon, $3.79/quart

- one carton of floor tile covers 45 sq. ft.

- one carton costs $33.75

- one gallon of adhesive covers 150 sq. ft.

- one gallon of adhesive costs $8.79

SPECIAL NOTE:
          DO NOT be concerned about door and window openings

(Show all math. set-ups)   ((-10 points if not shown))   -underline your final
                                                                  answer-

1. What is the perimeter of the room?

2. How many square feet are contained in all the walls?

3. How many square feet does the ceiling/floor contain?

4. How many gallons of paint would be required to cover all walls with two coats
   of paint?

5. How much paint would be required to cover the ceiling with one coat of paint?

6. How much would it cost to purchase the paint for the walls?

7. How much would it cost to purchase the paint for the ceiling?

8. How many cartons of floor tiles would be needed to cover the floor?

9. How much adhesive is needed to adhere the floor tile?

10. How much will the floor tile cost?

11. How much will the adhesive cost?

12. How much will the entire remodeling job cost including paint and tile, etc.?

Name _____

Due _____

HOME IMPROVEMENT WORKSHEET #3

Given:

Room A
measuring 9' x 13' x 8' high, containing 2 windows and 2 doors

Room B
measuring 5' x 9' x 7½' high, containging 1 window and 1 door

- primer paint costs $17.95/gallon, $4.79/quart

- one roll of wallpaper costs $6.50

- one lb. of wallpaper adhesive costs $0.75

- ceramic tiles cost $0.45 each

- one gallon of mastic adhesive costs $9.75, $2.89/quart

- one lb. of grout costs $2.85

NOTE:
To complete this worksheet you must use your handout entitled <u>Information /
Solutions / Formulas / Problems</u>

(Show all math. set-ups)   ((-10 points if not shown))   -underline your final answers-

1. What is the perimeter of

Room A?

Room B?

2. How many square feet are contained in all the walls, minus any openings involved?

Room A?

Room B?

3. How much paint would be needed to prime all walls in the room with one coat of
paint / wall?

Room A? .

Room B?

Name _____

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4. How many rolls of wallpaper will be needed to cover the walls in room A?

5. How much will the wallpaper cost?

6. How many lbs. of adhesive are needed?

7. How much will the adhesive cost?

8. What is the total cost of the job including primer paint for Room A?

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9. How many individual tiles will be needed to cover all the walls in Room B?

10. How much will the tiles cost?

11. How much mastic adhesive will be used?

12. How much will the mastic adhesive cost?

13. How much grout will be needed?

14. How much will the grout cost?

15. What is the total cost of the job including primer paint for Room B?

HOME MAINTENANCE AND REPAIR

Mr. Zaluj, Course Instructor

This course is a laboratory type course, thus much of the work is accomplished in class. If you miss school for any reason it is your responsibility to make-up all work missed. It is also your responsibility to obtain missed class notes and handouts.

Late work will be accepted with a possible 80% of the points the first day late, and 50% the second day. After two days, late work will not be accepted.

If you are absent you will be given one extra day for each day of absence.

If you are absent on the day of a quiz, you must make-up the missed quiz the day you return.

All students are allowed two unexcused tardinesses during the semester. After the second tardiness you will serve an after school detention for each lateness.

Course Outline

I. Introduction
   A. Why take this course
   B. Home repair occupations

IA. Basic geometric construction and measuring

II. Handtools
   A. Types
   B. Proper use
   C. Safety equipment

III. Lumber and related Materials
   A. Classifications and grading
   B. Types, grades, and sizes
   C. Wall framing
   D. Calculating amounts needed

IV. Fasteners
   A. Nails
      1. Sizes
      2. Coatings
   B. Screws
   C. Sheet metal fasteners
   D. Glues and adhesives

V. Care and maintenance of tools and equipment
   A. Sharpening
   B. Conditioning
   C. Safety

VI. Electrical Work
   A. The supply system

   B. Safety components
   C. Outlets, receptacles, and switches
   D. Cables and wires
   E. Circuits
   F. Regulations and codes
   G. Lamps
   H. Door bells
   I. Electric meters

VII. Window shades & sunscreens

VIII. Window screens

IX. Traverse rods

X. Installing entry locks & hinges

XI. Window repairs
   A. Types of windows
   B. Varieties of glass
   C. Tools needed
   D. Glazing

XII. Care and lubrication of lawn mowers

XIII. Insulating and Weatherstripping
   A. How it works
   B. Locations
   C. Forms
   D. R-values
   E. Tax credits
   F. Caulking

XIV. Floor coverings
   A. Types
   B. Refinishing
   C. Installing new flooring
   D. Tools and equipment needed
   E. Repairs

XV. Sanding and finishing woods
   A. Abrasives
   B. Steel wool
   C. Types of finishes
   D. Varities of finishes
   E. Stains
   F. Fillers and puttys
   G. Application methods
   H. Spot finishing

XVI. The home workshop

XVII. Plumbing
   A. Systems and components
   B. Pipes
      1. Materials

                                2. Sealants/ and soldering
                                3. Stacks
                                4. Traps
                                5. Main shut-off valve
                    C. Faucets
                    D. Flush tanks
                    E. Plumbing aides
                    F. Water heaters
                    G. Septic systems

XVIII. Home, fire safety, and first aid

XIX. Plaster board repair
                    A. Types of repairs
                    B. Cracks
                    C. Small holes
                    D. Large holes

XX. Wall coverings
                    A. Types
                    B. Borders
                    C. Wall preparation
                    D. Removing old coverings
                    E. Paper hanging

XXI. Ceramic tiling
                    A. Preparation
                    B. Adhesives
                    C. Grout

XXII. Heating system maintenance

XXIII. Exterior home repairs

XXIV. Home inspection

XXV. Purchasing a home