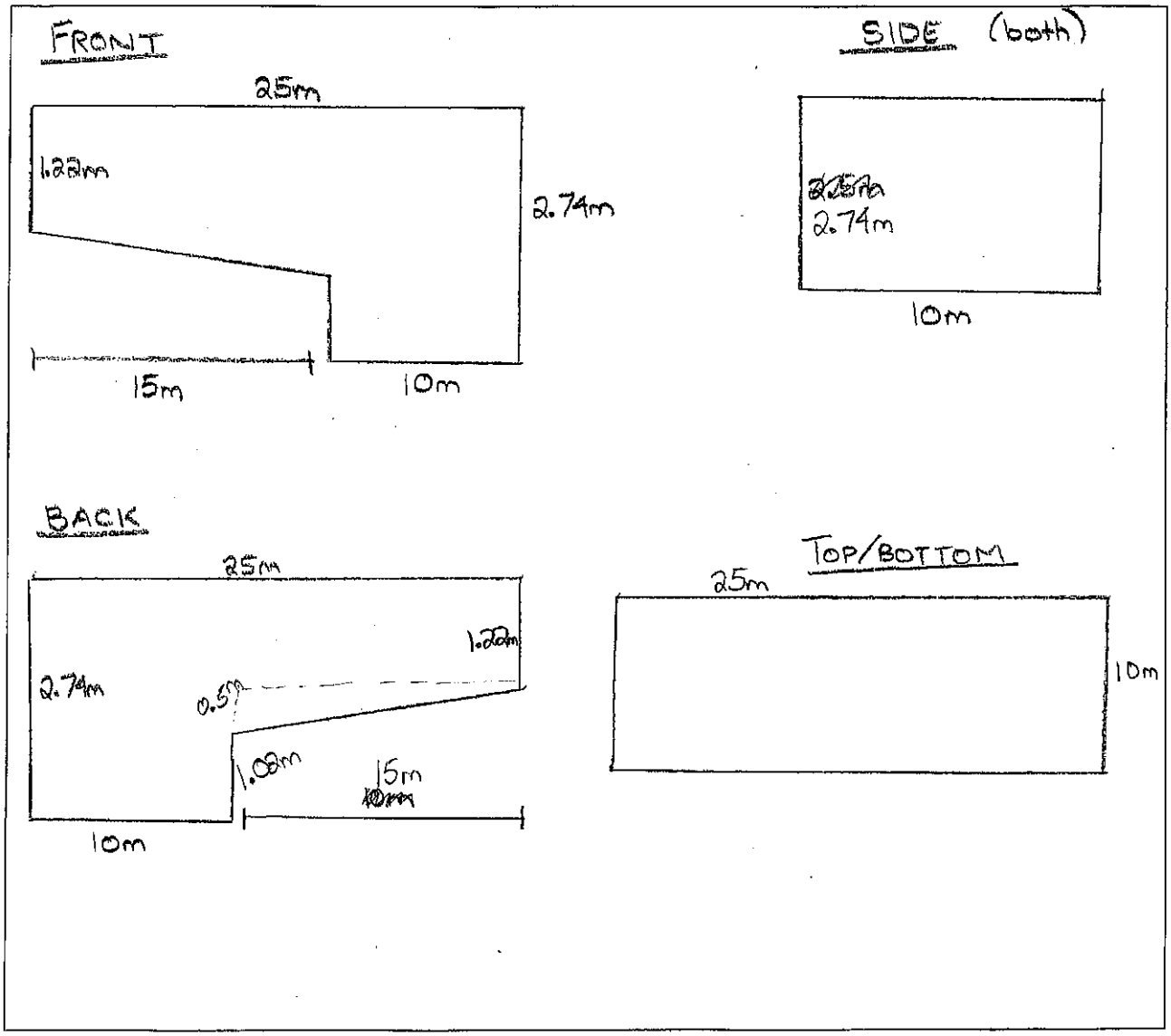
Linear Measurement Project
WP and A Math 10

Measurement Project Part 2

Sketch of my object including actual dimensions

each view of



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Email a screen shot of actual object with dimensions or picture of me measuring including measuring device to _____

Work for conversions...organized and labelled

$1.22m \times \frac{39.37in}{1m} = 48.0314$ inches

$48.0314in \times \frac{1 Foot}{12 inches} = 4.002616675ft$ = 4 feet

$5m \times \frac{39.37 inches}{1m} = 590.55$ inches

$590.55 \times \frac{1 Foot}{12 inches} = 49.21255ft$

49 feet $\times 12 = 588$ inches

$590.55in - 588in$

$= 2.55in$

49 ft 2.55 inches

$2.74m \times \frac{39.37 inches}{1m} = 107.8738$ inches

$107.8738in \times \frac{1 Foot}{12 inches} = 8.989485ft$

$8ft \times 12in = 96in$

$107.8738in - 91in$

$= 11.8738$ inches

8 ft 11.87 inches

$10m \times \frac{39.37 inches}{1m} = 393.7$ inches

$393.7in \times \frac{1 Foot}{12 inches} = 32.80835ft$

$32ft \times 12in = 384in$

$393.7 - 384in$

$= 9.7$ inches

32 ft 9.7 inches

$25m \times \frac{39.37 inches}{1m} = 984.25in$

$984.25in \times \frac{1ft}{12 inches} = 82.020ft$

$82ft \times 12in = 984$

$984.25 - 984$

$= .25$ inches

82 feet .25 in

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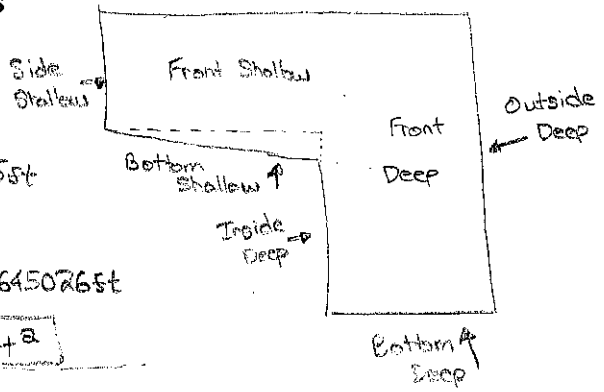
Measurement Project Part 3

Calculations for surface area in both measurement systems



Front/Back Shallow

= A(rectangle) + A(triangle)

= (1.22m × 15m) + (0.5 × 15m ÷ 2)

= 18.3m² + 3.75m²

= 22.05m²

= (4.002616675ft × 49.21255ft) + (1.640116675ft × 49.21255ft ÷ 2)

= 196.978773 + 40.36450265ft

= 237.3432755ft²

Front/Back Deep

= A(rectangle)

= 2.74m × 10m

= 27.4m²

= 8.989485ft × 32.80835ft

= 294.9295575ft²

Side Shallow

= 1.22m × 10m

= 12.2m²

= 4ft × 32.80835ft

= 131.2332ft²

Side Outside Deep

= 2.74m × 10m

= 27.4m²

= 8.989485ft × 32.80835ft

= 294.9295575ft²

Side Inside Deep

= 1.02m × 10m

= 10.2m²

= 3.34645ft × 32.80835ft

= 107.364155ft²

Bottom Deep

= 10m × 10m

= 100m²

= 32.80835ft × 32.80835ft

= 1076.210665ft²

Bottom Shallow

slant side = $a^2 + b^2 = c^2$

$0.5^2 + 15^2 = c^2$

$0.25 + 225 = c^2$

$\sqrt{225.25} = c$

$15.008331_m = c$

$15.008331 \times \frac{39.37in}{1m} \quad \frac{1ft}{12inch} = 49.23983262225ft$

L × W

= 15.008331m × 10m

= 150.008331m²

L × W

49.23983262225ft × 32.8083ft

= 1615.475200625767ft²

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Surface	Metric	Imperial
Example:		
Front Shallow	$22.05 m^2$	$237.343275 ft^2$
Back Shallow	$22.05 m^2$	$237.343275 ft^2$
Front Deep	$27.4 m^2$	$294.929557 ft^2$
Back Deep	$27.4 m^2$	$294.929557 ft^2$
Side Shallow	$12.2 m^2$	$131.23325 ft^2$
Side Outside Deep	$27.4 m^2$	$294.929557 ft^2$
Side Inside Deep	$10.2 m^2$	$107.364155 ft^2$
Bottom Deep	$100 m^2$	$1076.21086 ft^2$
Bottom Shallow	$150.08331 m^2$	$1615.475200628767 ft^2$

$= 309.78331 m^2$ $= 4289.75849 ft^2$

or $4289 ft^2$ $9.10 in^2$

The Surface Area of my object is $309.78 m^2$