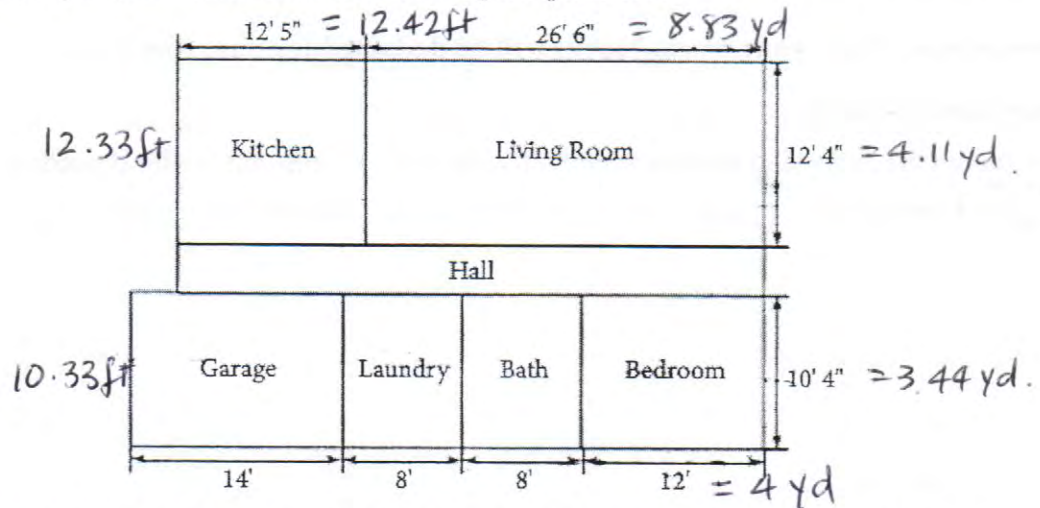


**Application: 9 Marks**

Provide answer statements to get full marks.

4. The floor plan of Jimmy's house is given as shown. Tile costs \$3.60 per square foot; carpet costs \$28.00 per square yard, and hardwood costs \$6.99 per square foot.



- (a) How much does it cost to put carpet in both the living room and the bedroom? [A: 5]

$$26'6'' = 26.5 \div 3 = 8.83 \text{ yd.}$$

$$12'4'' = 12.33 \div 3 = 4.11 \text{ yd.}$$

$$10'4'' = 10.33 \div 3 = 3.44 \text{ yd.}$$

$$12' = 12 \div 3 = 4 \text{ yd.}$$

$$A_{LR} + A_{BR} = 8.83 \times 4.11 + 3.44 \times 4$$

$$= 36.29 + 13.76$$

$$= 50.05 \text{ sq yd.}$$

$$\text{Cost} = 50.05 \times \$28 = \$1401.40$$

- (b) How much does it cost to put tiles in both the kitchen and the bathroom? [A: 4] \$3.60/sq.ft.

$$12'5'' = 12.42 \text{ ft}$$

$$12'4'' = 12.33 \text{ ft.}$$

$$8' = 8 \text{ ft.}$$

$$10'4'' = 10.33 \text{ ft.}$$

$$A_K + A_B$$

$$= 12.42 \times 12.33 + 8 \times 10.33$$

$$= 153.14 + 82.64$$

$$= 235.78 \text{ sq. ft.}$$

$$\text{Cost} = 235.78 \times \$3.60$$

$$= \$848.81$$