

## Real World Applications for Perimeter & Area Problems (A)

1. A rectangular room has dimensions of 12ft by 10ft. Determine P & A of room!  
If carpet and installation cost per \$2 sq ft then cost to carpet room?  
Hint: 1 ft x 1 ft = 1 sq ft       $P = L+W+L+W$        $A = L \times W$   
 $P = 12+10+12+10 = 44\text{ft}$        $A = 12 \times 10 = 120\text{sqft}$   
Cost to Carpet floor 120ft x \$2 = \$240
2. A rectangular room has dimensions of 11ft by 13ft. Determine P & A of room!  
If baseboard & installation is \$3 per Linear Ft then cost to install baseboard!  
Hint: 1 Linear Foot is 1 ft       $P = L+W+L+W$        $A = L \times W$   
 $P = 13+11+13+11 = 48\text{ft}$        $A = 13 \times 11 = 143\text{sqft}$   
Baseboard around Perimeter of Floor Installed 48ft x \$3 = \$144
3. A room has dimensions 11' 6" by 10' 3" then find P & A of room in Decimals!  
If hardwood for floor and installation cost per \$7 sq ft then cost for hardwood?  
Hint: 12" = 1 ft       $P = L+W+L+W$        $A = L \times W$   
 $P=11.5+10.25+11.5+10.25=43.5\text{ft}$        $A=11.5 \times 10.25=117.875\text{sqft}$   
Hardwood Floor installed 117.825x7=\$825.13
4. A room has dimensions 11' 4" by 10' 8" then find P & A with Mixed Numbers!  
If crown molding & installation is \$4 per Linear Ft then cost for crown molding!  
Hint: 1 Linear Foot is 1 ft       $P = L+W+L+W$        $A = L \times W$   
 $P = 11 \frac{1}{3}+10 \frac{2}{3}+11 \frac{1}{3}+10 \frac{2}{3} = 44\text{ft}$        $A = 11 \frac{1}{3} \times 10 \frac{2}{3} = 120 \frac{8}{9}\text{sqft}$   
Crown Molding around Perimeter of Ceiling Installed 44ft x \$4 = \$176
5. A rectangular room has dimensions of 13ft by 15ft. Determine P & A of room!  
If linoleum and installation cost per \$1.50 sq ft then cost for linoleum installed?  
Hint: 1 ft x 1 ft = 1 sq ft       $P = L+W+L+W$        $A = L \times W$   
 $P = 15+13+15+13 = 56\text{ft}$        $A = 15 \times 13 = 195\text{sqft}$   
Cost for Linoleum floor 195ft x \$1.50 = \$292.50
6. A rectangular room has dimensions of 11ft by 13ft. Determine P & A of room!  
If baseboard & installation is \$4 per Linear Ft then cost to install baseboard!  
Hint: 1 Linear Foot is 1 ft       $P = L+W+L+W$        $A = L \times W$   
 $P = 13+11+13+11 = 48\text{ft}$        $A = 13 \times 11 = 143\text{sqft}$   
Baseboard around Perimeter of Floor Installed 48ft x \$4 = \$192
7. A room has dimensions 15' 3" by 12' 6" then find P & A of room in Decimals!  
If hardwood for floor and installation cost per \$7 sq ft then cost for hardwood?  
Hint: 12" = 1 ft       $P = L+W+L+W$        $A = L \times W$   
 $P = 15.25+12.5+15.25+12.5 = 55.5\text{ft}$        $A=15.25 \times 12.5 = 190.625 \text{ sqft}$   
Hardwood Floor installed 190.625 x \$7=\$1334.38
8. A room has dimensions 12' 4" by 11' 8" then find P & A with Mixed Numbers!  
If crown molding & installation is \$4 per Linear Ft then cost for crown molding!  
Hint: 1 Linear Foot is 1 ft       $P = L+W+L+W$        $A = L \times W$   
 $P = 13+11+13+11 = 48\text{ft}$        $A = 13 \times 11 = 143\text{sqft}$   
Crown Molding around Perimeter of Ceiling Installed 48ft x \$4 = \$192