1. Living Room Lighting Distribution

Question:
Plot the number of light fixtures needed in a **15ft x 20ft** living room with different brightness levels (in lumens) at each corner.
X-axis: Fixture Position (Corner 1, Corner 2, Corner 3, Corner 4)
Y-axis: Brightness in Lumens
Values:
Corner 1 → 800 Lumens
Corner 2 → 1000 Lumens
Corner 3 → 700 Lumens
Corner 4 → 1200 Lumens

2. Wall Color Impact on Room Temperature

Question:
Compare the temperature in a room painted in three different colors during the day.
X-axis: Time (8 a.m., 12 p.m., 4 p.m., 8 p.m.)
Y-axis: Temperature (°C)
Values:

- White Wall: 22, 26, 24, 20
- Dark Grey Wall: 24, 29, 27, 23
- Green Wall: 23, 27, 25, 21

3. Acoustic Panel Thickness vs Noise Reduction

Question:
Test different panel thicknesses for noise reduction in a room.
X-axis: Panel Thickness (cm)
Y-axis: Noise Reduction (dB)
Values:
1 cm → 5 dB
2 cm → 10 dB
3 cm → 14 dB
4 cm → 18 dB
5 cm → 22 dB

4. Natural Light Intensity Across the Day

Question:
Measure natural light intensity in a room facing East.
X-axis: Time (6 a.m. to 6 p.m. every 2 hours)
Y-axis: Light Intensity (Lux)
Values:

6 a.m. → 150 Lux
8 a.m. → 300 Lux
10 a.m. → 600 Lux
12 p.m. → 900 Lux
2 p.m. → 700 Lux
4 p.m. → 400 Lux
6 p.m. → 200 Lux

5. Energy Consumption of Light Bulbs

Question:
Compare the energy consumption of LED, CFL, and Incandescent bulbs.
X-axis: Time (Hours)
Y-axis: Energy Consumption (Watts)
Values:
LED → 10W
CFL → 14W
Incandescent → 60W

6. Number of Shelves vs Storage Capacity

Question:
Design wardrobe shelves and calculate storage capacity.
X-axis: Number of Shelves
Y-axis: Storage Capacity (Cubic Feet)
Values:
2 shelves → 10 Cubic Feet
3 shelves → 15 Cubic Feet
4 shelves → 20 Cubic Feet
5 shelves → 25 Cubic Feet

7. Distance of Light Fixture vs Brightness

Question:
Measure brightness based on the distance of light fixtures.
X-axis: Distance from Light Source (m)
Y-axis: Brightness (Lux)
Values:
1m → 400 Lux
2m → 200 Lux
3m → 100 Lux
4m → 50 Lux
5m → 25 Lux

8. Paint Finish vs Cleaning Time

Question:
Compare the cleaning time of different paint finishes.
X-axis: Paint Finish (Matte, Satin, Glossy)
Y-axis: Cleaning Time (Minutes)
Values:
Matte → 10 Minutes
Satin → 7 Minutes
Glossy → 5 Minutes

9. Furniture Weight Capacity vs Material

Question:
Compare different furniture materials by weight capacity.
X-axis: Material (Wood, Steel, Plastic)
Y-axis: Weight Capacity (kg)
Values:
Wood → 100 kg
Steel → 150 kg
Plastic → 80 kg

10. Natural Ventilation Efficiency

Question:
Compare window sizes and airflow rates.
X-axis: Window Size (sq ft)
Y-axis: Airflow Rate (m^3/h)
Values:
2 sq ft → 50 m^3/h
4 sq ft → 100 m^3/h
6 sq ft → 150 m^3/h
8 sq ft → 200 m^3/h

11. Ceiling Height vs Room Temperature

Question:
How does ceiling height affect room temperature?
X-axis: Ceiling Height (ft)
Y-axis: Room Temperature (°C)
Values:
8ft → 28°C
10ft → 26°C
12ft → 24°C

14ft → 22°C

12. Flooring Material vs Walking Sound

Question:
Compare noise levels on different flooring materials.
X-axis: Material (Wood, Carpet, Tile)
Y-axis: Noise Level (dB)
Values:
Wood → 50 dB
Carpet → 30 dB
Tile → 60 dB

13. Curtain Thickness vs Sunlight Blocking

Question:
Test how different curtain thickness blocks sunlight.
X-axis: Curtain Thickness (mm)
Y-axis: Light Blocking (%)
Values:
1mm → 20%
2mm → 40%
3mm → 60%
4mm → 80%
5mm → 95%

14. Furniture Cost vs Quality

Question:
Compare the price of furniture with its quality rating.
X-axis: Price (£)
Y-axis: Quality Rating (/10)
Values:
£200 → 6
£400 → 7
£600 → 8
£800 → 9

15. Number of Light Bulbs vs Electricity Bill

Question:
How does adding more light bulbs affect the electricity bill?
X-axis: Number of Light Bulbs
Y-axis: Monthly Electricity Bill (£)
Values:
2 Bulbs → £10

4 Bulbs → £20
6 Bulbs → £30
8 Bulbs → £40