Practice Calculating Weight on Earth

- Example: Object has a mass of 50 kg
- It's on Earth and gravity = 9/8 m/s^2
- What is the weight on Earth?

- W = m x a
- W = 50 kg x 9.8 m/s^2
- W = 490 $kg*m/s^2$
- **W = 490 N**

- Remember: 1 N = 1 Kg * m/s^2

1

Practice Calculating Weight on the Moon

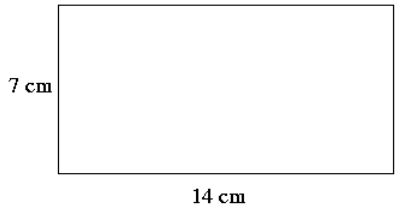
- If an object is 80 N, what is its weight on the moon?
- Gravity on the moon = 1/6 of Earths

- W moon = 80 N * 1/6
- W = 13.3 N on the moon

2

Practice Calculating Area

Area (A) = Length (L) x Width (W)

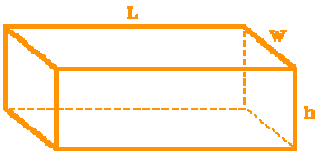


7 cm x 14 cm = 98 cm^2

3

Practice Calculating Volume

L = 10 cm
W= 5 cm
H = 2 cm



V = L x W x H
V = 10 cm x 5 cm x 2 cm
V = 100 cm^3

4

Practice Using Temperature

Celsius to Kelvin	C + 273 = K
Fahrenheit to Celsius	(F-32) * (5/9) = C
Celsius to Fahrenheit	(9/5)(C) + 32 = F

The temperature is 105 degrees F, what is the temperature in Celsius?

C = (F-32) * (5/9)

= (105-32) * (5/9)

= (73) * (5/9)

= 40.6 degrees C

5

Practice Using Temperature

Celsius to Kelvin	C + 273 = K
Fahrenheit to Celsius	(F-32) * (5/9) = C
Celsius to Fahrenheit	(9/5)(C) + 32 = F

The temperature is 30 degrees C, what is the temperature in Fahrenheit?

F = (9/5)(C) + 32

= (9/5) (30) + 32

= (54) + 32

= 86 Degrees F

6

Practice Using Temperature

Celsius to Kelvin	C + 273 = K
Fahrenheit to Celsius	(F-32) * (5/9) = C
Celsius to Fahrenheit	(9/5)(C) + 32 = F

The temperature is 35 degrees F, what is the temperature in Kelvin?

C = (F-32) * (5/9)
= (35-32) * (5/9)
= (3) * (5/9)
= 1.67 C

K = C + 273
= 1.67 + 273
= 274.67 K

7

Practice Calculating Density

SI Unit = g/cm^3

D = M/V Mass = 5 kg

The mass of an object is 5 kg and it takes up 200 cm^3 in space. What is it's Density?

1) Convert 50 kg to grams 5 kg * 1000 g/1 kg
M = 5,000 g =
D = 5,000 g/200 cm^3
D = 25 g/cm^3

8