



## PROBLEMS AND SOLUTIONS - OPERATIONS ON SYSTEMS OF MEASUREMENT

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Thank you!

**YOU MUST BE ABLE TO DO THE FOLLOWING PROBLEMS WITHOUT A CALCULATOR!**

### Problem 1:

Find the sum of  $4 \text{ ft} + 5 \text{ in}$ .

### Problem 2:

Find the sum of  $7 \text{ lb } 8 \text{ oz} + 3 \text{ lb } 12 \text{ oz}$ . Write your answer in standard notation.

### Problem 3:

Find the sum of  $681 \text{ mL} + 7.8 \text{ L}$ . Write your answer in standard notation.

### Problem 4:

Find the sum of  $7479 \text{ mm} + 285 \text{ cm} + 27.6 \text{ m}$

### Problem 5:

Find the difference of  $4 \text{ ft } 8 \text{ in} - 3 \text{ ft } 2 \text{ in}$ .

### Problem 6:

Find the difference of  $6 \text{ lb } 7 \text{ oz} - 2 \text{ lb } 9 \text{ oz}$ .

### Problem 7:

Find the difference of  $3.786 \text{ kg} - 455 \text{ mg}$ .

### Problem 8:

Multiply  $13 \text{ gal } 1 \text{ qt}$  by  $6$ . Write your answer in standard notation.

### Problem 9:

Multiply  $3.8 \text{ m}$  by  $9$ . Write your answer in standard notation.

**Problem 10:**

Multiply **3 mi** by **5 mi**

**Problem 11:**

Multiply **4 ft** by **10 in**

**Problem 12:**

Multiply **4 m** by **1 m** by **5 m**

**Problem 13:**

Divide **12 gal 2 qt** by **6**.

**Problem 14:**

Divide **11 gal 3 qt 1 pt** by **3**.

**Problem 15:**

Divide **150 cm** by **6**.

**Problem 16:**

Divide **12 gal** by **6 gal**.

**Problem 17:**

Divide **3.6 lb** by **9 lb**. Write your answer in standard notation.

**Problem 18:**

Divide **340 kg** by **5 kg**.

**Use the following approximations in Problems 19-24:**

**NOTE: The symbol  $\approx$  means "approximately equal to".**

1 cm  $\approx$  0.3937 in

1 m  $\approx$  39.37 in

1 km  $\approx$  0.6214 mi

1 g  $\approx$  0.0353 oz

1 kg  $\approx$  2.2046 lb

1 mL  $\approx$  0.034 oz

1 L  $\approx$  1.0567 qt

**Problem 19:**

Change **33 cm** to **inches**. Round your answer to 2 decimal places.

**Problem 20:**

Change **33 in** to **centimeter**. Round your answer to 2 decimal places.

**Problem 21:**

Change **3.4 lb** to **kilograms**. Round your answer to two decimal places.

**Problem 22:**

Change **10,000 cc** to **ounces**.

**Problem 23:**

Change **52 feet** to **meters**. Round your answer to two decimal places.

### Problem 24:

Change **2.5 kilograms** to **pounds**. Round your answer to two decimal places.

### SOLUTIONS

You can find detailed solutions below the link for this problem set!

1. 1 yd 1 ft 5 in	2. 11 lb 4 oz	3. 8.481 L
4. 37.929 m	5. 1 ft 6 in	6. 3 lb 14 oz
7. 3.785545 kg	8. 79 gal 2 qt	9. 34.2 m
10. 15 mi <sup>2</sup>	11. 480 in <sup>2</sup>	12. 20 m <sup>3</sup>
13. 2 gal $\frac{1}{3}$ qt	14. 3 gal 3 qt $10\frac{2}{3}$ oz	15. 25 cm
16. 2	17. 0.4	18. 68
19. 12.99 in	20. 83.82 cm	21. 1.54 kg
22. 340 oz	23. 15.85 m	24. 5.51 lb