# **Homework 9**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. Tony started his math project at 1:57 p.m. and finished the project 80 minutes later. Tony has band practice at 4:00 p.m. **How much time did Tony have between the end of the project and the beginning of band practice?**

 **Your answer should be**

* an integer, like 6666
* an *exact* decimal, like 0.750.750.750, point, 75
* a *simplified proper* fraction, like 3/53/53/53, slash, 5
* a *simplified improper* fraction, like 7/47/47/47, slash, 4
* a mixed number, like 1 3/41\ 3/41 3/41, space, 3, slash, 4

Minutes

* 1. Ayden claims his dad can count to 1,000,000 saying each number. If on average it takes 2 seconds to say each number, how long does it take to count to 1,000,000 without taking any breaks? Round your answer to the nearest day.
  2. The PTA is organizing an ice cream extravaganza with 8 flavors of ice cream. They need a total of 5 gallons of ice cream. The 1.75-quart containers of ice cream are on sale for $3.00 per container. How much will they spend on ice cream?
  3. Tina’s walk home from work is 2 miles. After leaving work she walks 1000 feet and stops to get a drink of water. Tina then walks an additional quarter of a mile and gets her mail. How much further does she need to walk? Give your answer in feet. 1 mile = 5280 feet.

5. On Martin's first stroke, his golf ball traveled 4/5 of the distance to the hole. On his second stroke, the ball went into the hole. Martin was standing 79 meters from the hole as he took his second stroke.

**How many *kilometers* from the hole was Martin when he started?**

 **Your answer should be**

* an integer, like 6666
* an *exact* decimal, like 0.750.750.750, point, 75
* a *simplified proper* fraction, like 3/53/53/53, slash, 5
* a *simplified improper* fraction, like 7/47/47/47, slash, 4
* a mixed number, like 1 3/41\ 3/41 3/41, space, 3, slash, 4

Kilometers

6. Jemma filled one-fourth of a barrel with compost on Saturday. Then she filled the remaining space with 4200 g of compost on Sunday. **How many *kilograms* of compost are in the barrel?**

 **Your answer should be**

* an integer, like 6666
* an *exact* decimal, like 0.750.750.750, point, 75
* a *simplified proper* fraction, like 3/53/53/53, slash, 5
* a *simplified improper* fraction, like 7/47/47/47, slash, 4
* a mixed number, like 1 3/41\ 3/41 3/41, space, 3, slash, 4

Kilograms.

7. Lisa went on a 52 km hike. She divided the distance traveled evenly over 4 days. **How many *meters* did Lisa walk each day?**

 **Your answer should be**

* an integer, like 6666
* an *exact* decimal, like 0.750.750.750, point, 75
* a *simplified proper* fraction, like 3/53/53/53, slash, 5
* a *simplified improper* fraction, like 7/47/47/47, slash, 4
* a mixed number, like 1 3/41\ 3/41 3/41, space, 3, slash, 4

Meters

8. Tony made 14 L of lemonade for a party. His guests drank 9500 mL of the lemonade. **How many *milliliters* of lemonade did Tony have left over?**

 **Your answer should be**

* an integer, like 6666
* an *exact* decimal, like 0.750.750.750, point, 75
* a *simplified proper* fraction, like 3/53/53/53, slash, 5
* a *simplified improper* fraction, like 7/47/47/47, slash, 4
* a mixed number, like 1 3/41\ 3/41 3/41, space, 3, slash, 4

Ml

9. Wes mixed different juices to make fruit punch. He filled one-half of the punch bowl with orange juice. Then he filled half the remaining space with grape juice. Finally, he filled the rest of the punch bowl with 300 mL of cherry juice. **How many *liters* of fruit punch did Wes make?**

 **Your answer should be**

* an integer, like 6666
* an *exact* decimal, like 0.750.750.750, point, 75
* a *simplified proper* fraction, like 3/53/53/53, slash, 5
* a *simplified improper* fraction, like 7/47/47/47, slash, 4
* a mixed number, like 1 3/41\ 3/41 3/41, space, 3, slash, 4

Liters

10. Cora sliced 18 kg of green apples for a party. She divided the apple slices equally between 5 large bowls.

**How many *grams* of apple slices did Cora put in each bowl?**

 **Your answer should be**

* an integer, like 6666
* an *exact* decimal, like 0.750.750.750, point, 75
* a *simplified proper* fraction, like 3/53/53/53, slash, 5
* a *simplified improper* fraction, like 7/47/47/47, slash, 4
* a mixed number, like 1 3/41\ 3/41 3/41, space, 3, slash, 4

G

11. **Convert** 4 **miles to yards.**  **Your answer should be**

* an integer, like 6666
* an *exact* decimal, like 0.750.750.750, point, 75
* a *proper* fraction, like 1/21/21/21, slash, 2 or 6/106/106/106, slash, 10
* an *improper* fraction, like 10/710/710/710, slash, 7 or 14/814/814/814, slash, 8
* a mixed number, like 1 3/41\ 3/41 3/41, space, 3, slash, 4

Yards

12. **Convert** 30 **pounds to ounces.**  **Your answer should be**

* an integer, like 6666
* an *exact* decimal, like 0.750.750.750, point, 75
* a *proper* fraction, like 1/21/21/21, slash, 2 or 6/106/106/106, slash, 10
* an *improper* fraction, like 10/710/710/710, slash, 7 or 14/814/814/814, slash, 8
* a mixed number, like 1 3/41\ 3/41 3/41, space, 3, slash, 4

Ounces

13. **Fill in the table to convert the units of measure from pints to quarts or quarts to pints.**

|  |  |
| --- | --- |
| Pints | Quarts |
| 12 |  |
|  | 12 |
|  | 23 |

14. **Convert** 98 **cups to pints.**  **Your answer should be**

* an integer, like 6666
* an *exact* decimal, like 0.750.750.750, point, 75
* a *proper* fraction, like 1/21/21/21, slash, 2 or 6/106/106/106, slash, 10
* an *improper* fraction, like 10/710/710/710, slash, 7 or 14/814/814/814, slash, 8
* a mixed number, like 1 3/41\ 3/41 3/41, space, 3, slash, 4

Pints

15. **Arrange the following measurements in order from smallest to largest.**

10.6 gallons 5 gallons 24 quarts

16. **Arrange the following measurements in order from smallest to largest.**

1300 centimeters 5 meters 1 meter

**Solutions to Homework 9 – Conversions**

1. 80 minutes = 60 minutes + 20 minutes  
   80 minutes = 1 hour + 20 minutes

1:57 p.m. + 1 hour = 2:57 p.m. + 20 minutes = 3:17 p.m.

How much time did Tony have between 3:17 p.m. and the beginning of band practice at 4:00 p.m.?

Tony had 43 minutes between finishing his math project and the beginning of band practice.

1. If it takes 2 seconds to count each number, and there are a million numbers, then it takes 2,000,000 (two million) seconds. Converting this to days …

2,000,000 seconds ÷ 60 (seconds per minute) = 33333.33333 minutes

33333.33333 minutes ÷ 60 (minutes per hour) = 555.555555 hours

555.55555 hours ÷ 24 (hours per day) = 23.148148 days **Answer: 23 days**

1. 5 gallons is equivalent to 20 quarts (four quarts per gallon). So, the number of 1.75-quart containers you would need to buy is:

20 ÷ 1.75 = 11.429 containers

Since we can’t buy a fraction of a container, we will need 12 containers. Each container costs $3.00, so we will spend a total of $36.00. **Answer: $36.00**

1. The problem becomes easier if we work through it using feet instead of miles. Tina’s total distance between home and work is:

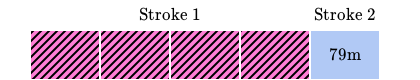
2 miles x 5280 (feet per mile) = 10,560 feet

She walks 1000 feet + 1320 feet (¼ of a mile), for a total of 2320 feet. Therefore, she needs to still walk an additional:

10,560 – 2,320 = 8,240 feet **Answer: 8,240 feet**

1. Martin's ball had to travel 1/5 of the total distance when he hit his second shot.

His second shot traveled 79 m. So, 1/5 of the distance to the hole is 79 m.



We want to know what distance all 5/5 represent, so we multiply 79×5.

79×5=395

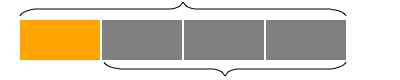
The total distance to the hole was 395 meters.

395 m=? Km

1 m=1/1000 of a kilometer.

So, 395 m=395/1000, or 0.395, of a kilometer. Martin was 0.395 kilometers from the hole when he started.

1. After using up one fourth of the space in the barrel on Saturday, Jemma filled the remaining 3/4 on Sunday.



We need to split 4200 grams into 3 equal parts.

4200÷3=1400 g

So each fourth of the barrel contains 1400 g.

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How many grams are in the entire barrel?

The entire barrel contains 1400×4=5600 g

We need to convert 5600 g to kilograms.

1 g=1/1000 kg

So, 5600 g=5600/1000=5.6 kg

There are 5.6 kg of compost in the barrel.

1. Lisa divided 52 km into 4 equal parts.

52 km ÷ 4=13 km

Lisa walked 13 km each day.

We need to convert 13 km to meters.

1 km=1000 m

So, 13 km=13×1000=13,000 m Lisa walked 13,000 m each day.

1. First, we need to convert 14 L to milliliters.

1 L=1000 mL

So, 14 L=14×1000=14,000 mL

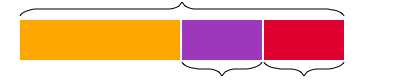
Tony made 14,000 mL of lemonade, and his guests drank 9500 mL.

We can subtract to find out how much lemonade Tony had left over.

14000−9500 = 4500 Tony had 4500 mL of lemonade left over.

1. After filling half of the space in the container with orange juice, Wes filled half of the remaining space with grape juice and the other half with 300 mL of cherry juice.

So, there is also 300 mL of grape juice.

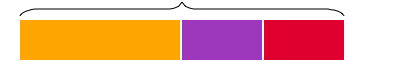


We need to add the amount of grape juice and cherry juice to determine the amount of orange juice.

300+300=600 mL

How many milliliters are in the whole fruit punch mix?

The whole fruit punch mix was 600+300+300=1200 mL.



We need to convert 1200 milliliters to liters.

1 mL = 1/1000 L

So, 1200 mL = 1200/1000 L = 1.2 L Wes mixed 1.2 liters of fruit punch.

1. First, we need to convert 18 kg to grams.

1 kg=1000 g

So, 18 kg=18×1000=18,000 g

Cora divided 18,000 g into 5 equal parts.

18000÷ 5=3600 g

Cora put 3600 g of apple slices in each bowl.

1. 1 mile=1760 yards

4 miles=4×1760=7040 yards

1. 1 pound=16 ounces

30 pounds=30×16=480 ounces

1. First, let's convert 12 pints to quarts.

1 pint=1/2 quart

12 pints=12÷2=6 quarts

Now, let's see how many pints are in 12 quarts and 23 quarts.

1 quart=2 pints

12 quarts=12×2=24 pints

23 quarts=23×2=46 pints

| **Pints** | **Quarts** |
| --- | --- |
| 12 | 6 |
| 24 | 12 |
| 46 | 23 |

1. 1 cup=​​/​1/2​​ pint

98 cups=98/2=98÷2=49 pints

1. We know 5 gallons is less than 10.6 gallons. But where does 24 quarts fit?

We need to convert 24 quarts to gallons before we can compare.

1 quart=1/4 gallon

24 quarts=24/4=24÷4=6 gallons Therefore, the order is 5 gallons, 24 quarts and 10.6 gallons.

16. We know 1 meter is less than 5 meters. But where does 1300 centimeters fit?

We need to convert 1300 centimeters to meters before we can compare.

1 centimeter=1/100 meter

1300 cm=1300/100=1300÷100=13 m

Therefore, the order is 1m, 5m, and 1300 cms