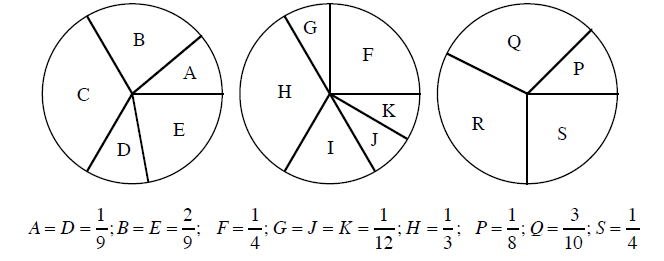
1. A package weighs a certain whole number of pounds. To ship this package by express, it costs $1.65 for the first five pounds and 12¢ for each additional pound. The total shipping cost was $3.45. How many pounds did the package weigh?
2. I am growing a pumpkin for Halloween. Right now it weighs 25 pounds. Each week it grows by 20% larger than the week before. How many pounds will it be after growing for 3 weeks?
3. A grocery store sells three different-sized cans of orange juice. A 6-oz can costs 55 cents. A 16-oz can costs $1.15. A 32-oz can costs $2.79. Which is the best buy?
4. Anne spent 2/3 of her money. She then lost 2/3 of the remainder and then had $4 left. How much money did Anne originally have?
5. Mr. Zipher sells fresh walnuts at his farm stand and charges by the pound. Stella fills a small bag and Mr. Zipher tells her it weighs lb and asks for 47 cents. She decides she has just enough for lb. of walnuts. How much is lb. of walnuts to the nearest five cents?
6. During a recent Cascade Ridge Walkathon Bob ran 50% more laps than Ram, and Ram ran 25% more laps than John. John ran 16 laps. How many laps did Bob run?
7. X and Y are two different numbers selected from the first 50 positive whole numbers from 1 to 50 inclusive. What is the largest value that can have?
8. Jack can paint a room in 3 hours and Stan can paint the same room in 2 hours. At these rates, how long will it take Jack and Stan to paint the same room together?

**BONUS PROBLEMS**

1. What is 0.001% of 2004?
2. On a number line, what fraction is exactly halfway between + and ?
3. The areas of the sectors of each of the three circles add to one. The decimal equivalent of the sum of C + I + R is closest to



a. 0.8 b. 0.81 c. 0.83 d. 0.835 e. 0.85

1. There is a gallon of water. A person takes 10 sips. Each sip follows a pattern. First, they drink 1/2 gallon, then 1/3 of what's left, then 1/4 of what's left, then 1/5 of what's left. After 10 sips, how much of the original amount is left?

Another person starts with a gallon and drinks 1/11 of it, then 1/10 of what's left, then 1/9 of what's left and so on, for 10 sips. How much is left?

**Solutions**

*Note: There are many acceptable strategies to solving each problem. This sheet shows just one strategy.*

1. Additional cost beyond first five pounds = $3.45 - $1.65

Additional cost beyond first five pounds = $1.80

Additional pounds = $1.80 ÷ ($0.12 per pound)

Additional pounds = 15 pounds

Total weight = 5 pounds + 15 additional pounds

**Answer: 20 pounds**

1. Right now, pumpkin weighs 25 pounds.

After first week, 25 + 20% = 25 + 5 = 30 pounds

After second week, 30 + 20% = 30 + 6 = 36 pounds

After third week, 36 + 20% = 36 + 7.2 = 43.2 pounds

**Answer: 43.2 pounds**

1. 6-oz can: price per ounce = $0.55 ÷ 6oz = $0.092 per ounce

16-oz can: price per ounce = $1.15 ÷ 16oz = $0.072 per ounce

32-oz can: price per ounce = $2.79 ÷ 32oz = $0.087 per ounce

**Answer: The 16-oz can is the best deal.**

1. Working backwards …

She ended with $4, after losing 2/3 of her money.

Therefore, she had $12 before she lost her money.

Therefore, she had $12 after spending 2/3 of her money.

Therefore, she started with $36.

**Answer: $36**

1. 3/16 lb walnuts costs 47 cents.

Therefore, walnuts per pound cost $0.47 ÷ = $2.507 per pound

Therefore, lb walnuts costs $2.507 lb = $1.253

**Answer: $1.25**

1. John ran 16 laps.

Ram ran 25% more than John, so Ram ran 16 + 25% = 16 + 4 = 20 laps

Bob ran 50% more than Ram, so Bob ran 20 + 50% = 20 + 10 = 30 laps

**Answer: 30 laps**

**Solutions (cont.)**

1. For largest fraction, make the numerator as high as possible, and make the denominator as low as possible.

So X=50 and Y=49

So fraction becomes = = = 99

**Answer: 99**

1. Figure out how much of the room each boy can paint in 1 hour.

Jack can paint 1/3 of the room in an hour.

Stan can paint 1/2 of the room in an hour.

Together, then can paint + room in an hour.

+ = + = room per hour, working together.

To paint the whole room, it will take 1 = 1 hours = 1 hour and 12 minutes

**Answer: 1 hour and 12 minutes**

1. 0.001% of 2004 = 2004 x .00001 = 0.02004

**Answer:** **0.02004 or 0.020 (rounded off)**

1. To add fractions, you must first convert them to have the same denominator. We’ll choose 24 as our common denominator, since it is the least common multiple of the original denominators: 4, 3, 8, and 6.

+ = + =

+ = + =

So, now we’re left with trying to find the number that is halfway between and . The number exactly halfway between 26 and 29 is 27. We can’t have a fraction in the numerator, so we must convert both fractions again so that the denominator is 48 instead of 24:

=

=

Now, we have to find the number that is halfway between and . This is doable, and the answer is .

**Answer: or 1**

1. A + D + B + E = 6/9, so C = 1/3. F + G + J + K + H = 5/6, so I = 1/6. P + Q + S = 27/40, so R = 13/40. 1/3 + 1/6 + 13/40 = 99/120 = 0.825 which rounds to 0.83.

**Answer: C**

1. In the first example:  
   1st sip: take ½, leave ½  
   2nd sip: take (1/3)\*(1/2), leave (2/3)\*(1/2) = 1/3  
   3rd sip: take (1/4)\*(1/3), leave (3/4)\*(1/3) = ¼  
   The pattern continues, so after the 10th sip, 1/11 gallon will be left.  
     
   In the second example:  
   1st sip: take 1/11, leave 10/11  
   2nd sip: take (1/10)\*(10/11) , leave (9/10)\*(10/11) = 9/11  
   3rd sip: take (1/9)\*(9/11), leave (8/9)\*(9/11) = 8/11  
   Again the pattern continues, so after the 10th sip, 1/11 gallon will be left.

**Answer: 1/11 gallon**