

Solutions:

WEEK 1 SOLUTION:

How many apples does Tomas expect in all?

$$180 \times 150 = 27,000 \text{ apples}$$

How many apples will the workers pick each hour?

$$27,000 \div 9 = 3000$$

How many pounds of apples would the workers have picked?

$$\frac{3 \text{ apples}}{1 \text{ pound}} = \frac{27,000 \text{ apples}}{x \text{ pounds}}$$

$$3x = 27,000$$

$$X = 9,000 \text{ pounds}$$

WEEK 2 SOLUTION:

1,000,000 minutes divided by 60 = 16,666.66667 hours

16,666.66667 hours divided by 24 = 694.4444444 days

694.4444444 days divided by 365 = 1.9 years

The child will be almost 2 years old.

WEEK 3 SOLUTION:

$$\$7.45 + \$4.99 + \$6.59 + \$12.98 = \$32.01$$

$$\$32.01 \times 0.20 = \$6.40 \text{ (amount to be reduced when coupon is used)}$$

$$\$32.01 - \$6.40 = \$25.61$$

$$\$25.61 \times .07 = \$1.79 \text{ (tax)}$$

$$\$25.61 + \$1.79 = \$27.40$$

$$\$50.00 - \$27.40 = \$22.60 \text{ (amount of money Gloria has left over)}$$

WEEK 4 SOLUTION:

$$\frac{1}{4} + \frac{1}{2} + \frac{3}{4} + \frac{1}{4} = \frac{7}{4} = 1 \frac{3}{4} \text{ pizza left over}$$

$$\frac{7}{4} \div \frac{1}{4} = 7 \text{ boys}$$

Solutions:

WEEK 5 SOLUTION:

$8 \times 12 = 96$ square inches of paper

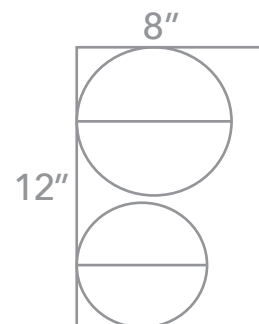
$3.14(3)^2 = 28.26$ square inches (area of the circle with a 3 inch radius)

$3.14(2.5)^2 = 19.625$ square inches (area of the circle with a 2.5 inch radius)

$28.26 + 19.63 = 47.89$ square inches of paper used for the circles

$96 - 47.89 = 48.11$ square inches of paper left over

Even though there is enough paper left over, it is NOT possible to cut another circle with a 3" radius. One circle has a diameter of 6", which leaves 2" distance to the edge of the paper. The other circle has a diameter of 5", which leaves a 3" distance to the edge of the paper. Neither is enough space for another circle with a 3" radius (6" diameter). See image to the right.



WEEK 6 SOLUTION:

There are 898 steps in the Washington Monument.

$$898 \div 2 = 449 \text{ seconds}$$

At the rate of 2 steps per second, it will take 449 seconds.

449 seconds

7 minutes and 29 seconds

WEEK 7 SOLUTION:

The New York Marathon is 26.2 miles long.

$$26.2 \text{ miles} \times 5.5 \text{ minutes} = 144.1 \text{ minutes}$$

$$26.2 \text{ miles} \times 5 \text{ minutes} = 131 \text{ minutes}$$

$$144.1 - 131 = 13.1 \text{ minutes longer}$$

WEEK 8 SOLUTION:

$$1,000,000 \text{ hours} \div 24 = 41,666.67 \text{ days (rounded)}$$

$$41,666.67 \text{ days} \div 365 = 114 \text{ years (rounded)}$$

Reagan began his second term of Presidency in 1984.

$$1984 - 114 = 1870$$

Ulysses S. Grant was the President of the United States in 1870.