

Finding Totals

1

Joe likes to collect and trade watches. On Friday, he had 23 watches in his collection.

On Saturday, he went to a flea market and bought 4 more watches for \$2.00 each. On Sunday, he went to 3 garage sales and bought 2 watches at each sale for \$1.00 each.

How many watches did Joe have on Sunday after his last purchase?

ALTERNATE QUESTION: *How much did the new watches cost him all together?*

2

Rosa's father gave her 42 stamps. Her goal is to have a collection of 100 stamps.

She bought 12 stamps at a shop and ordered 9 stamps from a magazine. Then she bought a special set of 14 stamps from the post office.

How many does she still need to reach her goal?

**3**

Shawn has 440 basketball cards so far. By the end of the month, he wants to own a total of 500.

The cards come in packs of 5. The first week of the month, he bought 4 packs of cards. The second week, he bought 3 packs. He bought 2 packs during the third week and 2 packs during the fourth week.

Did he reach his goal of 500 cards?

4

Bridget Baxter's mother has 28 refrigerator magnets. The Baxters decide to give Mrs. Baxter more magnets for her birthday.

Bridget gives her mother 2 magnets. Her brother gives their mother 4 magnets. Bridget's 2 sisters give their mother 3 magnets each, and Mr. Baxter gives his wife a set of 5.

After receiving her gifts, how many magnets does Mrs. Baxter have all together?

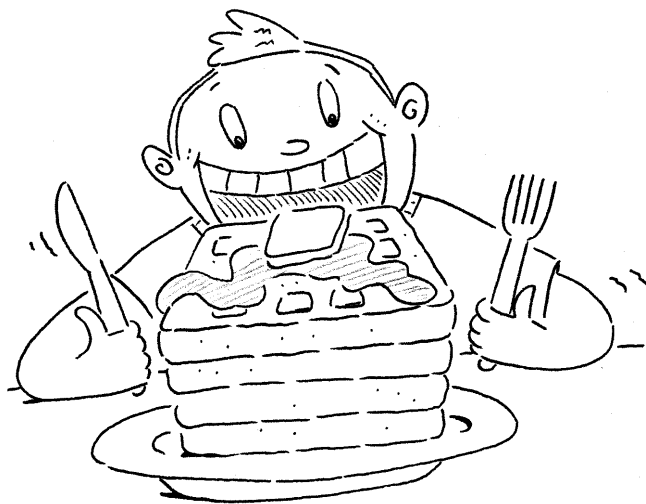
ALTERNATE QUESTION: *How many magnets did the family give Mrs. Baxter all together?*

5

Ernie loves waffles. On Monday he ate 3 waffles. On Tuesday, he ate 6 waffles.

For the next 3 days, he ate 2 waffles a day. On Saturday and Sunday, he ate 4 waffles each day.

How many waffles did Ernie eat that week all together?



6

Boris and Eddie played their favorite video game 2 hours a day for 4 days in a row.

On Monday, Boris earned 500 points and Eddie earned 450. On Tuesday, Boris earned 350 points and Eddie earned 520. On Wednesday, Boris earned 200 points and Eddie earned 180. On Thursday, Boris earned 600 points and Eddie earned 570.

Who had the most points at the end of the four days?

Using Inference to Find Totals

1

One week Toni found pennies on the sidewalk every day on the way to school. On Monday, she found 2 pennies. On Tuesday, she found 3 more than she found on Monday.

On Wednesday, Toni found 2 more than she found on Tuesday. On Thursday, she found 2 more than she found on Wednesday. On Friday, she found the same number of pennies that she found on Monday.

How much money did she find all together?

2

Mr. Wong's class decided to tally the taxis, buses, and trucks they could see from the classroom window between 9 A.M. and 9:30 A.M. on two days. They formed 3 groups to do the counting.

On Monday, Group 1 counted 24 taxis, Group 2 counted 7 buses, and Group 3 counted 31 trucks. On Tuesday, Group 1 counted 2 more taxis than they counted on Monday. Group 2 counted 1 fewer bus than on Monday, and Group 3 counted 3 more trucks than on Monday.

How many of each kind of vehicle did the students count all together?

ALTERNATE QUESTION: *How many vehicles did they count all together?*

3

Alexa, Barker, and Crystal entered a charity walkathon. Their sponsors agreed to give \$1.00 for each mile they walked.

Alexa had 10 sponsors, and she walked 4 miles. Barker had 12 sponsors, and he walked the same distance as Alexa. Crystal had 20 sponsors, and she walked 1 more mile than Alexa.

How much money did the 3 walkers raise all together?

4

During a rainy spell, a class measured the amount of rainfall each day for 5 days.

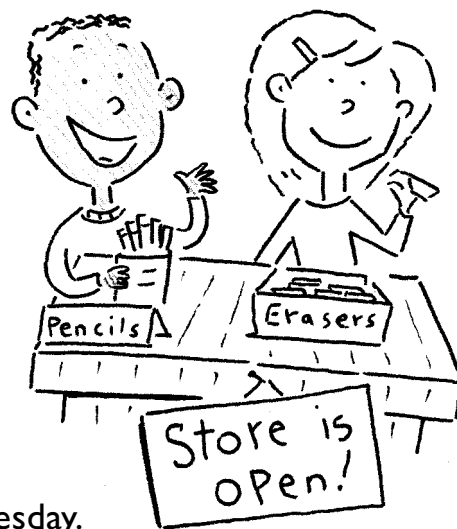
On Monday, they measured 1 inch of rain. On Tuesday, they measured twice as much as on Monday. On Wednesday, they measured 3 inches. On Thursday, they measured the same amount as on Tuesday. On Friday, they measured 1 inch.

How much did it rain all together from Monday through Friday?

5

Daisy and Eduardo manage the school store, which is open on Monday, Wednesday, and Friday. They sell pencils for 10 cents each and erasers for 25 cents each. One week they had especially good sales.

On Monday, they sold 20 pencils and 6 erasers. On Wednesday, they sold half as many pencils and twice as many erasers as on Monday. On Friday, they sold twice as many pencils as on Monday and twice as many erasers as on Wednesday.



How many pencils did they sell all together, and how many erasers?

ALTERNATE QUESTION: *How much money did they collect that week from sales of pencils and erasers?*

6

The cafeteria at Adams School sells apple crunch bars for 50 cents. The cashier kept track of how many bars they sold each week for a month.

The first week, they sold 98 bars. The second week, they sold 100 more than they sold the first week. The third week, they sold half as many as they did the second week. The fourth week, they sold 107 bars.

How many bars were sold in total over the 4 weeks?

ALTERNATE QUESTION: *What was the total amount of money taken in from the sale of the bars in 4 weeks?*

Figuring Totals After Exchanges

1 Barry and Brian like to play marbles. One Saturday morning, Barry had 56 marbles and Brian had 47 marbles.

They played for 3 hours on Saturday afternoon. Barry won 9 marbles from Brian and Brian won 12 marbles from Barry.

How many marbles did each boy have in the end?

2 Christine and Carmen often borrowed money from each other. At the beginning of the week, Christine had \$8.69 and Carmen had \$7.36.

On Monday, Carmen lent Christine \$1.25 for lunch and spent \$1.40 for her own lunch. The next day, Christine lent Carmen \$1.40 for lunch and spent \$1.80 for her own lunch.

How much did each girl have on Wednesday before they paid each other back?

3 Carlos and Frank practice tennis together at the public courts. One Saturday, they took 40 tennis balls with them.

They couldn't find 8 tennis balls they hit into the bushes and 5 that landed in the creek. Squirrels ran off with 3 more. They found 4 tennis balls on their court and kept those.



How many tennis balls did they have at the end of the day?

ALTERNATE QUESTION: *How many did they lose all together?*

4

Angelica had 63 charms in her collection and Brittany had 49 in hers when they decided to trade charms.

Angelica gave Brittany 13 charms, and Brittany gave Angelica 7 charms.

How many did each girl have after the trade?

ALTERNATE QUESTION: *Which girl had more charms at the end?*

5

Gamel put \$3.50 in change in his pocket and set off to buy a goldfish. When he got to the store, he discovered that some of his money had fallen through a hole in his pocket. He had only \$2.39.

When he went back to look for his money, he found a one-dollar bill, 3 pennies, and 1 dime.

How much did he have after finding the money?

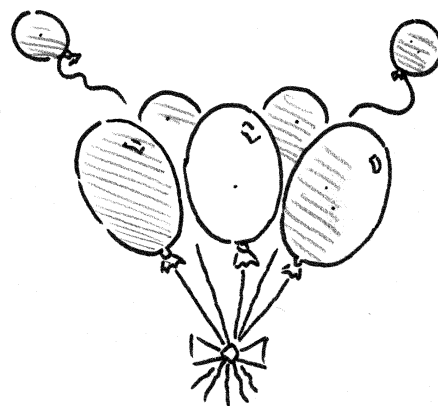
ALTERNATE QUESTION: *How much did he lose on the way to the store?*

6

Ms. Penny's class was responsible for bringing balloons to the school festival. Each of the 28 students brought in 1 package of 5 balloons, and the class went outside to blow them up.

As they were inflating the balloons, 24 popped and 11 blew away. Ms. Penny found 2 more packages of 5 balloons in her desk, and the students inflated those without losing a single one.

How many inflated balloons did the class have all together at the end?



Finding an Age

1 Diana's grandmother was born in 1939. She was 30 years old when Diana's mother was born.

Diana's mother was born in 1969, and Diana was born in 1993.

How old was Diana's grandmother when Diana was born?

2 Flora's father bought a 1957 Chevy for \$4,000 in 1985 when Flora was 10 years old.

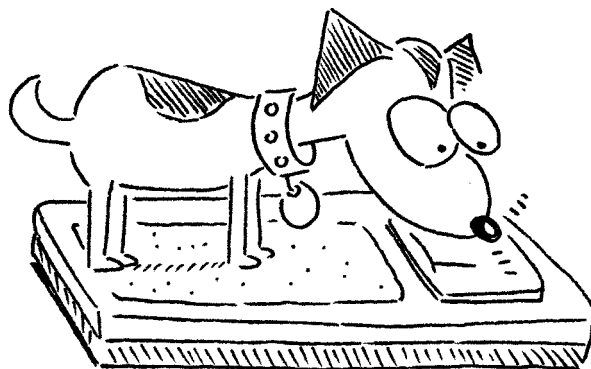
He kept the car for 12 years, and then he sold it for \$6,000.

How old was the car when he sold it?

3 Timmy got a 2-month-old puppy for his ninth birthday in June. The puppy weighed 15 pounds, and Timmy named him Bear.

Timmy expects to keep Bear until he graduates from high school at the age of 18.

How old will Bear be when Timmy graduates from high school?



4

Sumi moved to the United States with her parents in 1994, when she was 2 years old. The family moved to Iowa 2 years later.

After living in Iowa for 3 years, the family moved to Virginia. In the year 2000, they moved to Florida.

How old was Sumi when her family moved to Florida?

5

Tyrone's grandfather was born in January 1942. Tyrone's father was born in January 1968.

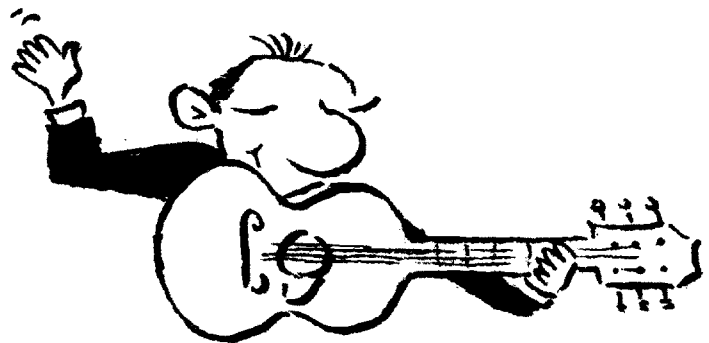
Tyrone was born in January 1995.

How old were Tyrone's grandfather and father when Tyrone was born?

6

Skip's grandfather, who was born in 1936, had a special guitar made for himself in 1960. He gave the guitar to Skip's father for his eighteenth birthday in 1984.

Skip's father gave the guitar to Skip for his fourteenth birthday in 1988.



How old was the guitar when Skip received it?

ALTERNATE QUESTION: *How old was Skip's grandfather when Skip received his special guitar?*

Finding the Year of Birth

1 Abraham Lincoln, the sixteenth president of the United States, was born on February 12.

If Lincoln were still alive in the year 2000, he would have celebrated his 191st birthday on February 12 of that year.

In what year was Lincoln born?



2 In 2001, Rayna created a family tree. She wrote 1938 as the year of her grandmother's birth and 1906 as the year of her great-grandmother's birth.

Rayna's mother looked at the tree and said, "Oops! You've got the wrong year of birth for your great-grandmother. She was 37 years old when my mother was born, not 32."

In what year was Rayna's great-grandmother born?

3 Thomas Jefferson wrote the first draft of the Declaration of Independence in Philadelphia in 1776 and became president of the United States 25 years later.

Jefferson was 57 years old when ran for president in 1800. He and Aaron Burr received the same number of votes, so Congress had to decide who would be president. In February of 1801, after 36 ballots, Jefferson won and took office soon after.

In what year was Thomas Jefferson born?



4

In 2002, Monica found a postcard that her grandfather had sent to her grandmother when they were young. The postcard was mailed on July 3, 1954. They were married 4 years later.

Monica's grandfather was 18 years old when he sent the card.

In what year was Monica's grandfather born?



5

Booker T. Washington was born in Virginia and later moved to Tuskegee, Alabama.

In 1881, Booker T. Washington became principal of Tuskegee Institute. He was 25 years old.

In what year was Booker T. Washington born?

6

When the United States declared its independence in 1776, the capital was in Philadelphia. George Washington, who became president in 1789 at the age of 57, decided that the new country should have a new capital.

Washington chose the site for the new capital in 1791. Nine years later, everything was ready and the federal government moved to the new capital, Washington, D.C.

In what year did Washington, D.C., become the official capital of the United States?

Solutions and Answers

Here are the answers to the questions, along with the steps taken to solve each problem. Students may take a different approach to solving a problem than is explained here.

ADDITION AND SUBTRACTION

Set 1 (pages 12–13)

- 23 watches + 4 more on Saturday = 27
 $27 + (2 \times 3) = 33$ watches
ALTERNATE: $4 \times \$2 = \8 ; $6 \times \$1 = \6 ; $\$8 + \$6 = \$14$
- $42 + 12 + 9 + 14 = 77$ stamps purchased
 $100 - 77 = 23$ stamps needed
- $440 + (4 \times 5) + (3 \times 5) + (2 \times 5) + (2 \times 5) = 495$ cards purchased
 $500 - 495 = 5$ cards left
No, Shawn did not reach his goal.
- 28 (already owned) + $2 + 4 + 6 + 5 = 45$ magnets
ALTERNATE: $2 + 4 + 6 + 5 = 17$ magnets
- $3 + 6 + (3 \times 2) + (4 + 4) = 23$ waffles
- Boris's total: $500 + 350 + 200 + 600 = 1,650$
Eddie's total: $450 + 520 + 180 + 570 = 1,720$
Eddie had the highest overall total.

Set 2 (pages 14–15)

- 2 (Monday) + 5 (Tuesday) = 7
 7 (Wednesday) + 9 (Thursday) = $16 + 2$ (Friday) = 18
 $7 + 18 = 25$ cents
- Group 1: 24 (Monday) + 26 (Tuesday) = 50 taxis
Group 2: 7 (Monday) + 6 (Tuesday) = 13 buses
Group 3: 31 (Monday) + 34 (Tuesday) = 65 trucks
ALTERNATE: $50 + 13 + 65 = 128$ vehicles
- Alexa: $(4 \times \$1) \times 10 = \40
Barker: $(4 \times \$1) \times 12 = \48
Crystal: $(5 \times \$1) \times 20 = \100
 $\$40 + \$48 + \$100 = \188
- Monday = 1; Tuesday = 2; Wednesday = 3;
Thursday = 2; Friday = 1
 $1 + 2 + 3 + 2 + 1 = 9$ inches
- Monday: 20 pencils, 6 erasers
Wednesday: 10 pencils, 12 erasers
Friday: 40 pencils, 24 erasers
 $20 + 10 + 40 = 70$ pencils; $6 + 12 + 24 = 42$ erasers
ALTERNATE: $70 \times \$1.0 = \7.00 ; $42 \times \$0.25 = \10.50
 $\$7.00 + \$10.50 = \$17.50$
- Week 1 = 98; Week 2 = 198; Week 3 = 99; Week 4 = 107 bars

$$98 + 198 + 99 + 107 = 502 \text{ bars sold}$$

ALTERNATE: $502 \times \$0.50 = \251 total sales of bars

Set 3 (pages 16–17)

- Barry: $56 + 9 - 12 = 53$ marbles
Brian: $47 - 9 + 12 = 50$ marbles
- Carmen: $\$7.36 - \$1.25 - \$1.40 + \$1.40 = \$6.11$
Christine: $\$8.69 + \$1.25 - \$1.40 - \$1.80 = \$6.74$
- Lost tennis balls: $8 + 5 + 3 = 16$
 $40 - 16 = 24 + 4$ (found on court) = 28 tennis balls
ALTERNATE: $40 - 28 = 12$ tennis balls lost
- Angelica: $63 - 13 + 7 = 57$ charms
Brittany: $49 + 13 - 7 = 55$ charms
ALTERNATE: Angelica had 2 more charms.
- $\$2.39 + \$1.00 + \$0.03 + \$1.10 = \$3.52$
ALTERNATE: $\$3.50 - 2.39 = \1.11
- $28 \times 5 = 140$ balloons to start
 $140 - (24 + 11) = 105$ left after losses
 $105 + 10$ (from Ms. Penny's desk) = 115 balloons

Set 4 (pages 18–19)

- 1993 (Diana's birth) – 1939 (Grandma's birth) = 54 years old
- $1985 + 12 = 1997$ (year he sold the car)
 $1997 - 1957 = 40$ years old
- $18 - 9 = 9$ years old
- $1994 - 2 = 1992$ (year Sumi is born)
 $2000 - 1992 = 8$ years old
- $1995 - 1942 = 53$ years old (grandfather's age)
 $1995 - 1968 = 27$ years old (father's age)
- $1988 - 1960 = 28$ years old
ALTERNATE: $1988 - 1936 = 52$ years

Set 5 (pages 20–21)

- $2000 - 191 = 1809$
- $1938 - 37 = 1901$
- $1800 - 57 = 1743$
- $1954 - 18 = 1936$
- $1881 - 25 = 1856$
- $1791 + 9 = 1800$