

Name _____ Date _____ Part 2

(9A/B)

1. California has a redwood tree that is 321 feet high. It also has a giant sequoia tree that is 274 feet high. Oregon's tallest tree is a cedar tree 229 feet high. How much taller is the redwood tree than the Giant Sequoia?

- 47
- 56
- 153
- 157

(9A/B)

4. John bought a new notebook for \$3.98 and a gel pen for \$1.85. How much money did John spend?

- \$2.13
- \$3.53
- \$4.73
- \$5.83

(9A)

2. Joy has 2 shelves in her closet. On each shelf are 10 hats. How many hats does Joy have?

- 5
- 8
- 12
- 20

(9A/B)

5. The grocery store sold 149 boxes of cereal on Tuesday. On Wednesday it sold 245 bottles of shampoo. On Thursday it sold 317 boxes of cereal and 292 bottles of shampoo. How many boxes of cereal were sold?

- 168
- 466
- 537
- 711

(9A/B)

3. Kay put 4 boxes in her car. Each box had 10 books. How many books were in the boxes?

- 6
- 14
- 24
- 40

(9A/B)

6. Tricia has 695 baseball cards. Ann has 187 baseball cards. How many baseball cards do the two girls have?

- 511
- 772
- 821
- 882

(9A/B)

7. Tom had \$8.00. He bought a burger and fries for \$5.25. How much money did he have left after paying for his burger and fries?

- \$1.50
 \$2.75
 \$3.75
 \$4.25

(22A)

4	8	12	16	?	24	28
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10. What number is missing in the pattern?

- 18
 20
 21
 23

(9A)

8. Virginia has 4 rows of tomatoes. She planted 8 tomato plants in each row. How many tomato plants did she plant?

- 2
 4
 12
 32

(22A)

The numbers in the chart follow patterns.

3	7	11
6	10	14
9	13	
12	16	20

11. What number is missing in the chart?

- 14
 16
 17
 19

(22A)

3	7	12	16	21	25	30	?
---	---	----	----	----	----	----	---

9. What is the next number in the pattern?

- 33
 34
 35
 36

(22)

START	END
2	8
4	16
6	24
8	32
10	40

12. What rule was followed in the "Start – End" box?

- Add 6
- Add 12
- Multiply by 2
- Multiply by 4

(22A)

IN	OUT
10	5
12	7
15	10
17	12
20	

13. What number is missing in the table?

- 14
- 15
- 16
- 17

(24A/B)

14. Read the clues to figure out the missing number.

- The missing number is greater than the sides of an equilateral triangle.
- The missing number is an odd number.
- The missing number is less than the sides of a hexagon.

What is the missing number?

- 3
- 4
- 5
- 6

(24A)

15. Ed, Gage, Harriet, and Ingrid ran a race.

- Ed finished before Gage
- Harriet finished after Gage.
- Ingrid finished last.

Who won the race?

- Ed
- Gage
- Harriet
- Ingrid

(22B)

16. What is the next shape in the pattern?

1256	1266	1276	1286	?
------	------	------	------	---

Write the missing number. _____

Explain why the number you wrote is next in the pattern.

17. Mary Ann bought a bottle of water for 85¢.

(24A)

- She paid the exact amount.
- She used no half-dollars.
- She used no pennies.
- She used at least 2 quarters each time.

Show all the different combinations of nickels, dimes, and/or quarters she could have used. Use an organized list or table.

(24B)

18. Sara, Chuck, Juan, and Mary ran in a race.

- Chuck beat Juan.
- Chuck was beaten by Mary.
- Sara ran the slowest.

On the lines below write the names of the runners in the order they finished the race.

1st Place: _____

3rd Place: _____

2nd Place: _____

4th Place: _____

In the space below, explain or show how you figured out who was in third place.

(24B)

19. Jack, Kelly, Laura, and Mandy earned money shoveling snow.

- Laura had \$40 more than Kelly.
- Mandy had \$15 less than Jack.
- Kelly had \$10 more than Mandy.
- Jack had \$50.

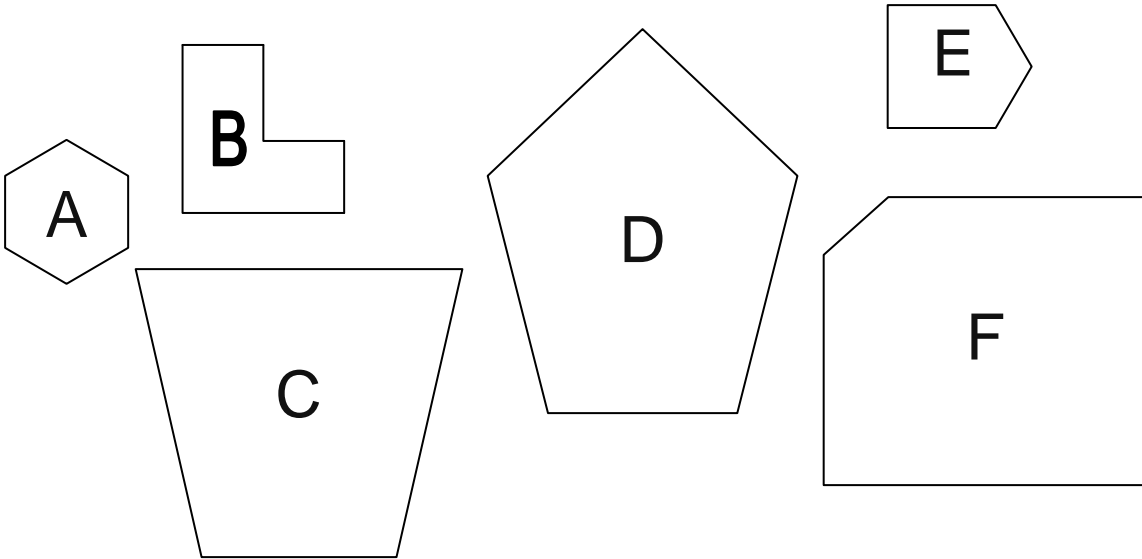
Who had the most money? _____

How much money did Mandy have? _____

Show your work in the space below.

(24B)

20. Sort all 6 of these shapes into 2 groups so that the shapes in each group have something in common. Show how you grouped the shapes by writing the **letters** from each shape into the boxes labeled GROUP 1 and GROUP 2.



GROUP 1	GROUP 2

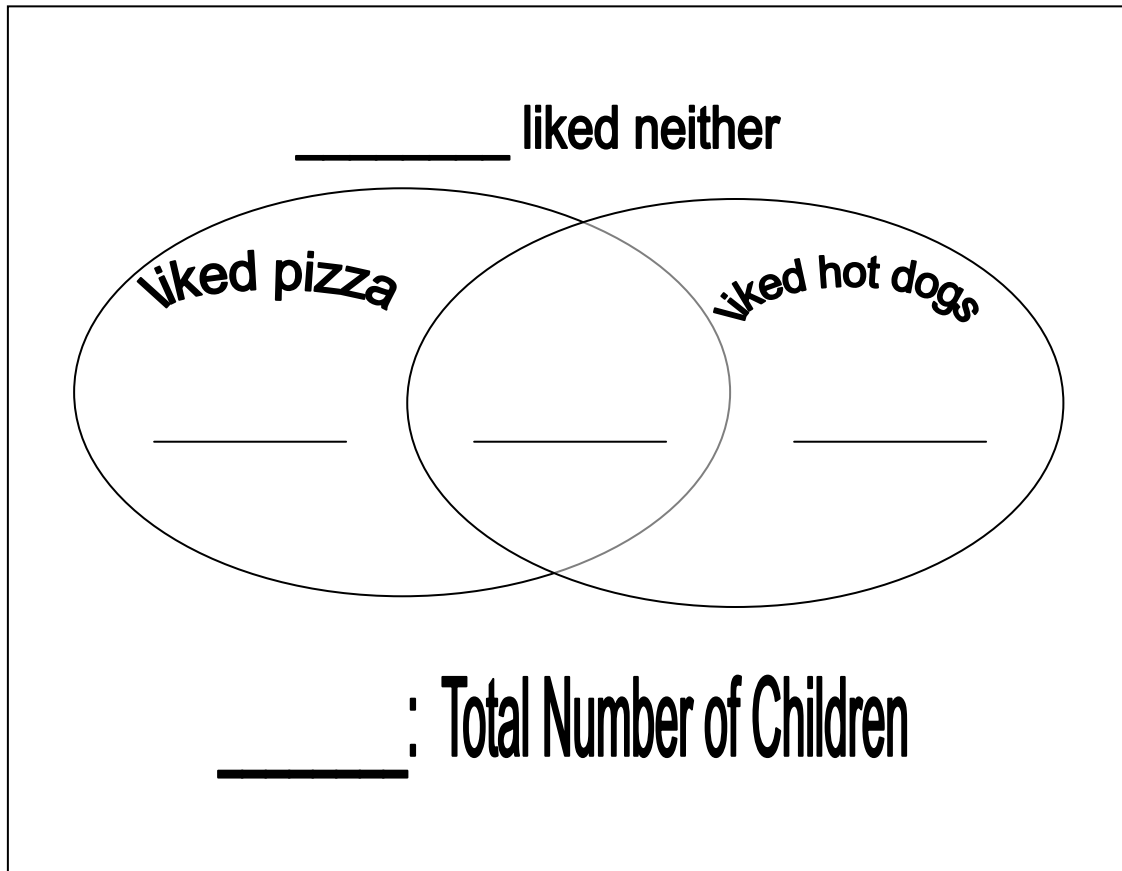
Explain how you decided to group the shapes.

(24B)

21. Josh took a survey of the fourth graders in his school. He found out that

- ◆ 27 children liked pizza,
- ◆ 9 children liked hot dogs,
- ◆ 24 children liked both pizza and hot dogs, and
- ◆ 15 children did not like pizza or hot dogs.

How many children voted in the survey? _____?

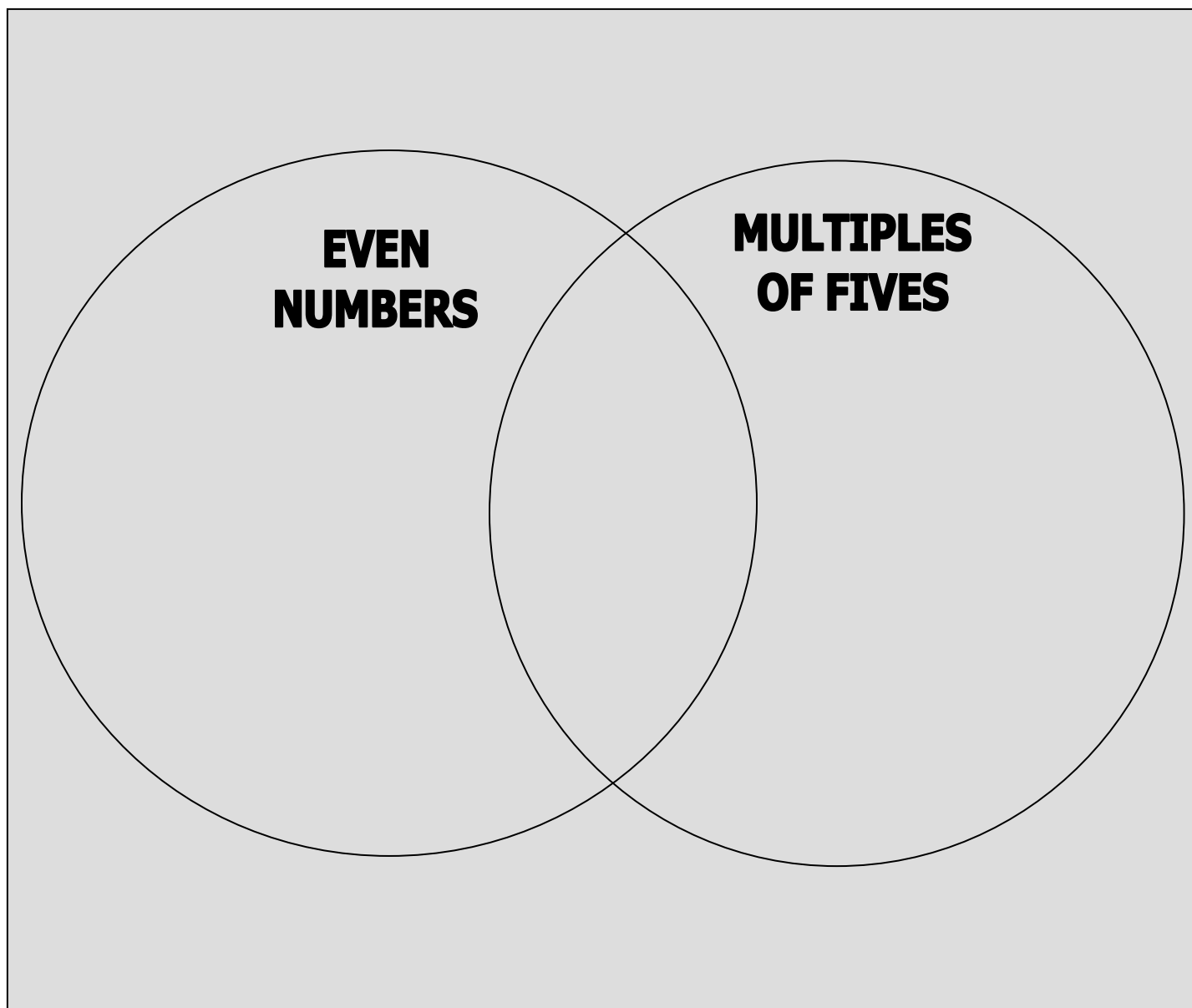


(24B)

22. Write each number in the correct place inside or outside the circles.

0 1 4 5 7 10 12

16 20 23 25 29 30



(25A)

23. On Monday, Joe asked his mother if he could go with his friends to the movies on Friday. His mother gave him a list of chores and said he would have to earn \$5 to buy the movie ticket.

Chores	Price for Each Hour
B = Baby sit his sister.	\$.50
D = Dust the furniture.	\$.05
M = Make his bed.	\$.50
W = Wash dishes.	\$.25
C = Clean his room.	\$.75
T = Take out the trash.	\$.25
S = Sweep the floor.	\$.10
F = Fold clothes.	\$.10

Make a plan for Joe to earn exactly \$5.

- List the chores he will need to do.
- Be sure to pick at least 5 different jobs.
- He may do each job chosen as many hours as wanted.
- Show your work in the chart or somewhere else on this page.
- You may use more paper if you need more space.

Chore	Price for 1 Hour	Number of Hours	Money Earned
TOTAL:			

Grade 4 – Topic 7 (PART 2) GWM CMT Practice Items
December 12, 2005

Obj. 9A: Solve one-step story problems involving whole numbers and money amounts.

- Use 2- and 3-digit numbers in addition and subtraction problems
- Use 1-digit numbers in multiplication problems.

Obj. 9B: Solve one-step story problems involving addition or subtraction with extraneous information.

- Use 2- and 3-digit numbers in addition and subtraction problems.

Obj. 22A: Identify the missing terms in a pattern, or identify rules for a given pattern using whole numbers and attributes.

Obj. 22B: Extend or complete patterns and state rules for given patterns using whole numbers and attributes.

Obj. 24A: Solve logic, counting and classification problems involving the organization of data.

Obj. 24B. Sort or classify objects, and draw logical conclusions from data including Venn diagrams and transitive reasoning questions.

Obj. 25A: Solve extended numerical and statistical problems.

ANSWERS

(9A/B)

1. California has a redwood tree that is 321 feet high. It also has a giant sequoia tree that is 274 feet high. Oregon's tallest tree is a cedar tree 229 feet high. How much taller is the redwood tree than the Giant Sequoia?

- 47 ***
- 56
- 153
- 157

(9A)

2. Joy has 2 shelves in her closet. On each shelf are 10 hats. How many hats does Joy have?

- 5
- 8
- 12
- 20 ***

(9A/B)

3. Kay put 4 boxes in her car. Each box had 10 books. How many books were in the boxes?

- 6
- 14
- 24
- 40 ***

(9A/B)

4. John bought a new notebook for \$3.98 and a gel pen for \$1.85. How much money did John spend?

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(9A/B)

5. The grocery store sold **149 boxes of cereal** on Tuesday. On Wednesday it sold 245 bottles of shampoo. On Thursday it sold **317 boxes of cereal** and 292 bottles of shampoo. How many boxes of cereal were sold?

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(9A/B)

6. Tricia has 695 baseball cards. Ann has 187 baseball cards. How many baseball cards do the two girls have?

- 511
- 773
- 821
- 883 ***

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7. Tom had \$8.00. He bought a burger and fries for \$5.25. How much money did he have left after paying for his burger and fries?

- \$1.50
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(22A)

4	8	12	16	?	24	28
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10. What number is missing in the pattern?

- 18
 20 ***
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(9A)

8. Virginia has 4 rows of tomatoes. She planted 8 tomato plants in each row. How many tomato plants did she plant?

- 2
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 12
 32 ***

(22A)

The numbers in the chart follow patterns.

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11. What number is missing in the chart?

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(22A)

3	7	12	16	21	25	30	?
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9. What is the next number in the pattern?

- 33
 34 ***
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(22)

START	END
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6	24
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12. What rule was followed in the “Start – End” box?

- Add 6
 Add 12
 Multiply by 2
 Multiply by 4 ***

(22A)

IN	OUT
10	5
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13. What number is missing in the table?

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(24A/B)

14. Read the clues to figure out the missing number.

- The missing number is greater than the sides of an equilateral triangle.
- The missing number is an odd number.
- The missing number is less than the sides of a hexagon.

What is the missing number?

- 3
 4
 5 ***
 6

(24A)

15. Ed, Gage, Harriet, and Ingrid ran a race.

- Ed finished before Gage
- Harriet finished after Gage.
- Ingrid finished last.

Who won the race?

- Ed ***
 Gage
 Harriet
 Ingrid

- | |
|-------------------------------------------------------------------|
| 1. Ed – Gage
2. Ed – Gage – Harriet
3. Ed – G – Ha – Ingrid |
|-------------------------------------------------------------------|

(22B)

16. What is the next shape in the pattern?

1256	1266	1276	1286	?
------	------	------	------	---

Write the missing number. 1296

Explain why the number you wrote is next in the pattern.

POSSIBLE EXPLANATIONS:

- Count by tens
- Tens place went by up ten each time
- Third digit increased by 1 (Child is not thinking of each number as a 4-digit number, and that's fine.)
- Third number increased by 1 (Would child be penalized for not knowing definition of digit vs number? I don't know; I hope not.)
- Next to last digit (or number?) increased by 1 each time
- Last 2 digits were counting by 10s

17. Mary Ann bought a bottle of water for 85¢.

(24A)

- She paid the exact amount.
- She used no half-dollars.
- She used no pennies.
- She used at least 2 quarter each time.

Show all the different combinations of nickels, dimes, and quarters she could have used. Use an organized list or table.

2 POSSIBLE SOLUTIONS:

Quarters	Dimes and Nickels
25 25 25	10
25 25 25	5 5
25 25	10 10 10 5
25 25	10 10 5 5 5
25 25	10 5 5 5 5 5
25 25	5 5 5 5 5 5

QUARTERS	DIMES	NICKELS
3	1	0
3	0	2
2	3	1
2	2	3
2	1	5
2	0	7

(24B)

18. Sara, Chuck, Juan, and Mary ran in a race. (24B)

- Chuck beat Juan.
- Chuck was beaten by Mary.
- Sara ran the slowest.

On the lines below write the names of the runners in the order they finished the race.

1st Place: Mary 3rd Place: Juan

2nd Place: Chuck 4th Place: Sara

In the space below, explain or show how you figured out who was in third place.

One Possible Way to Show

FIRST , < -----> LAST

1. Chuck – Juan
2. Mary – Chuck – Juan
3. Mary – Chuck – Juan – Sara

One Possible Explanation:

Sara was last, so she couldn't be third.

Chuck beat Juan; that put Juan into 2nd place for a while.

Then Mary beat Chuck; that moves Juan back to 3rd place.

(24B)

19. Jack, Kelly, Laura, and Mandy earned money shoveling snow.

- Laura had \$40 more than Kelly.
- Mandy had \$15 less than Jack.
- Kelly had \$10 more than Mandy.
- Jack had \$50.

Who had the most money? Laura

How much money did Mandy have? \$35

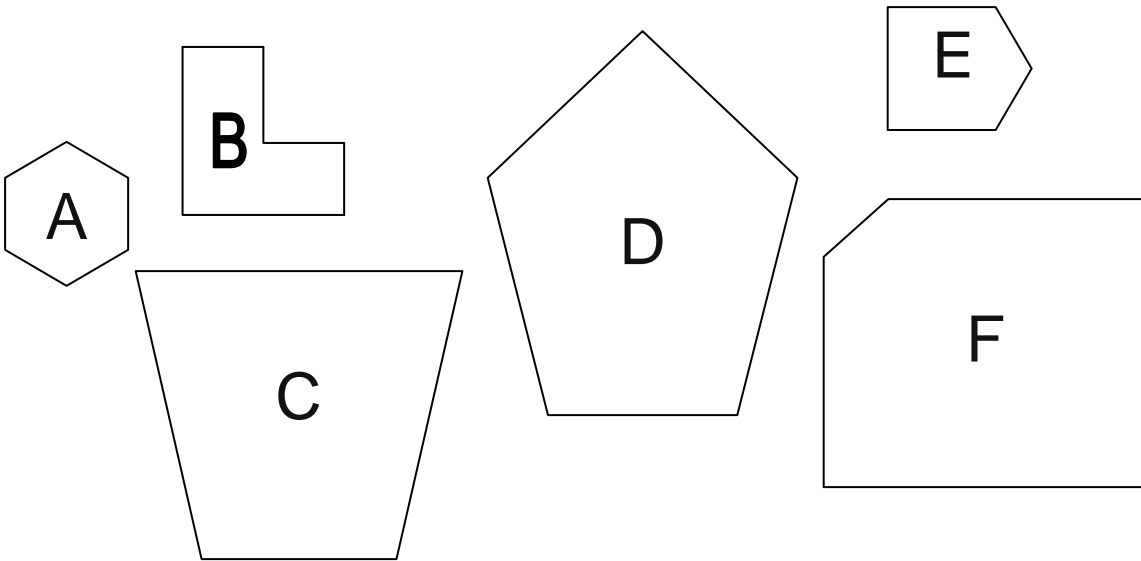
Show your work in the space below.

One Possible Explanation:

- 1) Jack = \$50
- 2) Mandy had Jack - 15. That = $50 - 15 = \$35$
- 3) Kelly had Mandy + 10. That = $35 + 10 = \$45$
- 4) Laura had Kelly + 40 = $45 + 40 = \$85$

(24B)

20. Sort all 6 of these shapes into 2 groups so that the shapes in each group have something in common. Show how you grouped the shapes by writing the **letters** from each shape into the boxes labeled GROUP 1 and GROUP 2.



GROUP 1	GROUP 2

Explain how you decided to group the shapes.

SOME POSSIBLE ANSWERS:

SIZE: small (ABE) vs large (CDF)
 small vs not small
 large (CDF) vs not large (ABE)

SHAPE:

- hexagons or 6-sided shapes (AB) vs shapes without 6 sides or shapes that aren't hexagons (CDEF)
- hexagons vs shapes with less than 6 sides
- pentagons (DEF) vs shapes that aren't pentagons (ABC)
- trapezoids or quadrilaterals or 4-sided shapes or 4-sided polygons (C) vs shapes that aren't trapezoids etc. (ABDEF)
- Shapes with right angles (BEF) vs Shapes without right angles (ACD)
- Shapes with parallel sides (ABCEF) vs shapes with no parallel sides (D)

(24B)

21. Josh took a survey of the fourth graders in his school. He found out that

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- ◆ 32 children liked hot dogs,
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- ◆ 15 children did not like pizza or hot dogs.

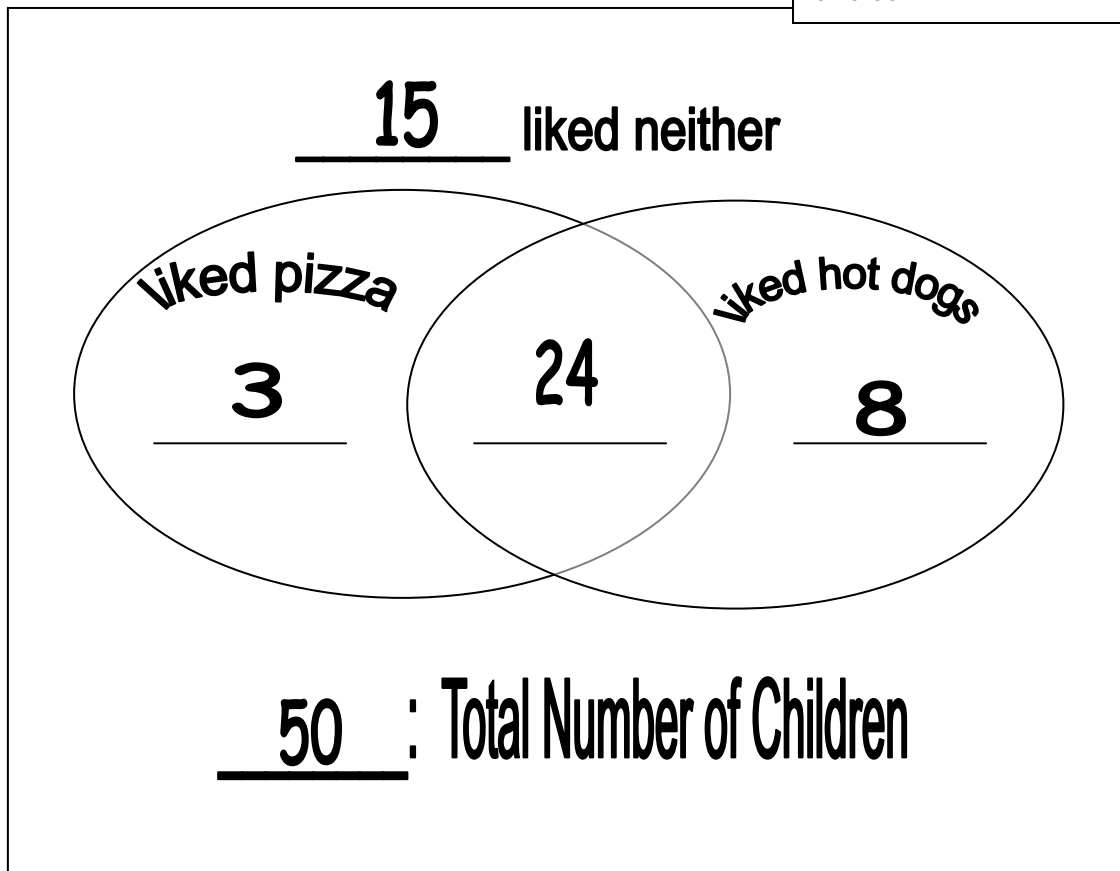
How many children voted in the survey? 50

$$15 + 3 + 24 + 8 = 50$$

$$27 \text{ Pizza} - 24 \text{ intersecting} = 3 \text{ pizza}$$

$$32 \text{ hot dogs} - 24 \text{ intersecting} = 8 \text{ hot dogs}$$

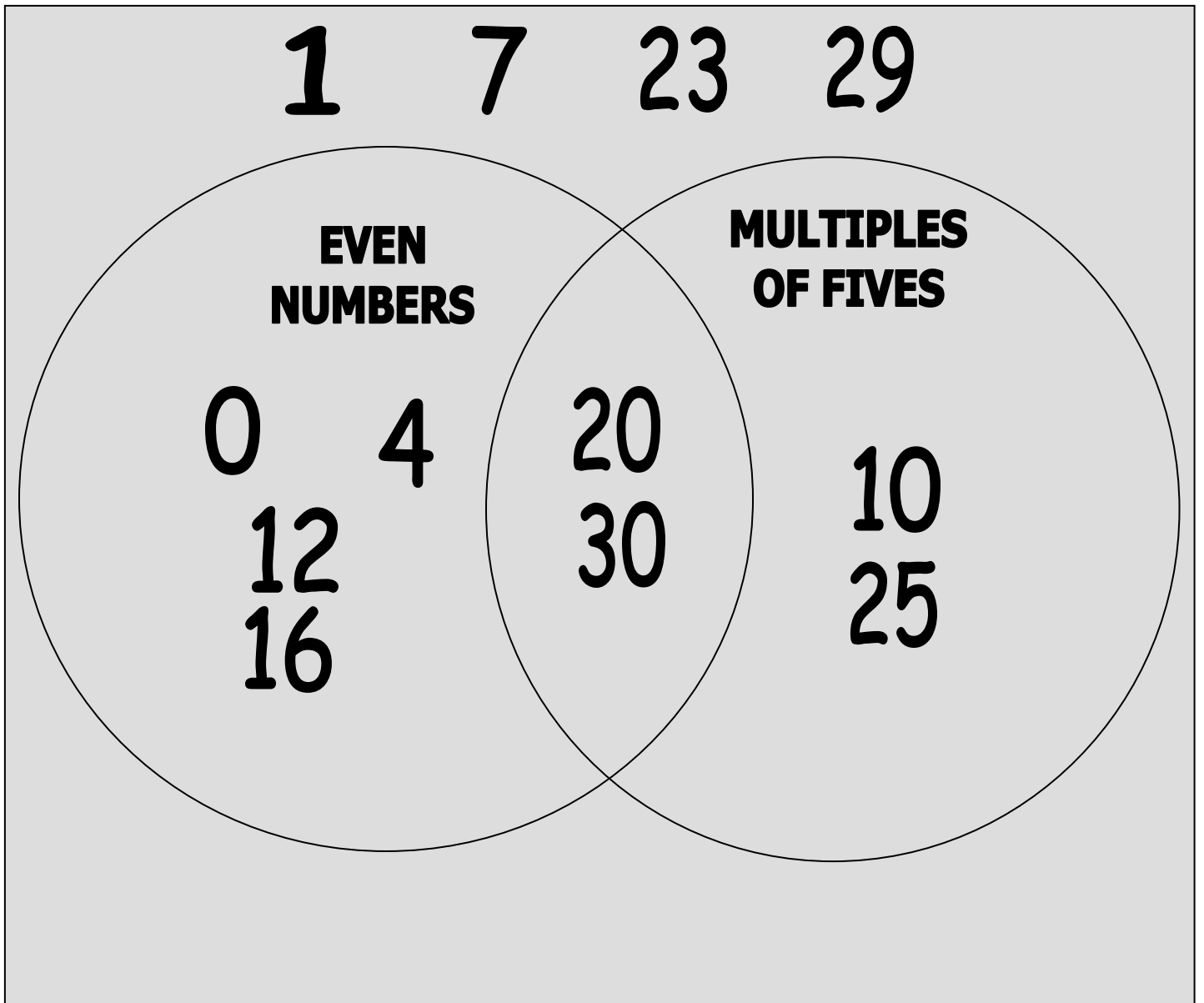
15 neither goes outside the circles



(24B)

22. Write each number in the correct place inside or outside the circles.

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16 20 23 25 29 30



(25A)

23. On Monday, Joe asked his mother if he could go with his friends to the movies on Friday. His mother gave him a list of chores and said he would have to earn \$5 to buy the movie ticket.

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C = Clean his room.	\$.75
T = Take out the trash.	\$.25
S = Sweep the floor.	\$.10
F = Fold clothes.	\$.10

Make a plan for Joe to earn exactly \$5.

- List the chores he will need to do.
- Be sure to pick at least 5 different jobs.
- He may do each job chosen as many hours as wanted.
- Show your work in the chart or somewhere else on this page.
- You may use more paper if you need more space.

Chore	Price for 1 Hour	Number of Hours	Money Earned
TOTAL:			

\$2.50 = 1 of each job
 \$2.50 = 1 of each job
 \$5.00 = TOTAL

B & M = \$1.00 (50 + 50)
 B & M = \$1.00
 C & W = \$1.00 (25 + 75)
 C & W = \$1.00
4 Ts = \$1.00 (25 x 4)
 TOTAL = \$5.00

Strategy – Use combinations that equal \$1.00

C & T (3 times) = \$3 (25 + 75) x3
 10 Fs = \$1 (10 x 10)
 5 Ss = \$.50 (5 x 10)
10 Ds = \$.50 (5 x 10)
 TOTAL = \$5.00