LESSON	Problem Solving
1-3	*Order of Operations*

Evaluate each expression to complete the table.

Mammals with the Longest Tails

	Mammal	Expression	Tail Length
1.	Asian elephant	$2 + 3^2 \times 7 - (10 - 4)$	
2.	Leopard	$5 \times 6 + 5^2$	
3.	African elephant	$6 \times (72 \div 8) - 3$	
4.	African buffalo	$51 + 6^2 \div 9 - 12$	
5.	Giraffe	$4^3 - 3 \times 7$	
6.	Red kangaroo	$11 + 48 \div 6 \times 4$	

Choose the letter for the best answer.

7. Adam and his two brothers went to the zoo. Each ticket to enter the zoo costs $7. Adam bought two bags of peanuts for $4 each, and one of his brothers bought a lion poster for $12. Which expression shows how much money they spent at the zoo in all?

  A $7 + 4 + 12$

  B $7 \times 3 + 4 + 12$

  C $7 \times 3 + 4 \times 2 + 12$

  D $(7 \times 3) + (4 \times 12)$

8. An elephant eats about 500 pounds of grass and leaves every day. There are 2 Africa elephants and 3 Asian elephants living in the City Zoo. How many pounds of grass and leaves do the zookeepers need to order each week to feed all the elephants?

  F 2,500 pounds

  G 17,500 pounds

  H 3,000 pounds

  J 21,000 pounds

9. The average giraffe is 18 feet tall. Which of these expressions shows the height of a giraffe?

  A $4^2 - 2$

  B $3 \times 12 \div 4 + 2$

  C $3^3 \div 9 \times 6$

  D $20 \div 5 + 5 - 6$

10. Some kangaroos can cover 30 feet in a single jump! If a kangaroo could jump like that 150 times in a row, how much farther would it need to go to cover a mile? (1 mile = 5,280 feet)

  F 780 feet   H 176 feet

  G 26 feet   J 5,100 feet

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Review for Mastery

1. 20; 140; 134
2. 46; 460; 463
3. 30; 40; 33
4. 14
5. 46
6. 97
7. 18
8. 5
9. 35

Challenge

1. +
2. −
3. ×
4. ÷
5. 4
6. 2
7. 1
8. 3

Problem Solving

1. 59
2. 55
3. 51
4. 43
5. 43
6. 43
7. C
8. G
9. C
10. F

Reading Strategies

1. Multiply → Divide → Subtract → Add
2. 10
3. Parentheses → Multiply → Divide → Add
4. 34
5. Possible explanation: The numbers and operations in each expression are the same, but the value of each expression is different since Exercise 3 includes parentheses.

Puzzles, Twisters & Teasers

1. 52
2. 88
3. 8
4. 3
5. 70
6. 67
7. 59
8. 99
9. 31
10. 25
11. 164
12. 76

WILL

GIVE YOU

A RING

LESSON 1-4

Practice A

1. C
2. J
2. D
4. G
5. $12 + 8$
6. $9 \times (6 \times 4)$
7. $(3 \times 5) + (3 \times 2)$
8. $(2 \times 4) + (2 \times 5)$
9. 30
10. 70
11. 60
12. 152
13. 318
14. 336
15. $30
16. 70 students

Practice B

1. 37
2. 300
3. 100
4. 40
5. 16
6. 360
7. 130
8. 60
9. 40
10. 64
11. 248
12. 186
13. 92
14. 145
15. 154
16. 189
17. 90
18. 352
19. 116
20. 217
21. 285
22. $108; Distributive Property
23. 400 pencils
24. 325 gallons

Practice C

1. $(a \times b) \times c = a \times (b \times c)$;
2. $a + b = b + a$; $a \times b = b \times a$
3. $a \times (b + c) = (a \times b) + (a \times c)$
4. 150
5. 800
6. 3,000
7. 600
8. 255
9. 690
10. 133
11. 2,080
12. 310
13. 288
14. 165
15. 259
16. 432
17. 1,680
18. 2,875 people
19. $475

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