

LESSON
1-6

Challenge

Order of Operations

Cut out the sixteen puzzle pieces below.

Arrange the pieces to form a square such that each expression matches with an equivalent number. For example, the expression $8 + 7 - 2 + 1$ on piece 1 evaluates to be 14. So, that expression should be placed side-by-side with 14 on piece 11. (Note: The expressions and numbers on the outside edges of the large square will have no match.)

If you correctly use the order of operations, there is only one solution.

$8 + 7 - 2 + 1$ 1 47	$2 \cdot 4 + 5 - 8$ 2 $2 \cdot 3^2 + 9$ 38	-15 3 7 $9 \cdot 5 \div 3 \cdot 5$ $8 + 2 \cdot (-9)^2$	$(9)(5)(2) - (-2^2)$ 4 $(2 \cdot 3)^2 + 9$ $9 \cdot 5 \div 3 \cdot 5$ $8 + 2 \cdot (-9)^2$
$(-3 \cdot 5^2 + 6 \cdot 5 + 5) \div (5 - 1)$ 5 $25 \cdot 2 + 5 \cdot 10$ $10 + 2 + 2 \cdot 5$ -11	75 6 $2^2 + 1 \div 8 \cdot 4 + 3$ 55	16 7 $(7 + 2) \cdot 5$ $8 -$ 0	$(3 + 4 \cdot 8) \div (1 + 2^2)$ 8 20 $5 \cdot (7 + 2 + 10)$
$(3 + 4) \cdot (8 \div 1) + 2^2$ 9 100 $20 - 2 \div 2 - 20$ $36 + 64 \div 2 - 20$ $\sqrt{36} - 5$ $-3 \cdot 1^2 - 5$	2 10 4 $(1 + 5)9 + 2$ 14	80 11 24 $(9 -) \cdot 2 + 8$ 12	$-6 - [4 - [2 \cdot 4 - (4 - 3)]]$ 12 $5 \cdot 2 + 7$ $(4 - 3^2)(3 - 4)$
$(9)(5)(2) - (-2)^2$ 13 38 $01 -$ 45	$(6 \cdot 5) + 4(9 - 2)$ 14 09 45 $3^2 - 6 \cdot 9 + 4 \div 2^2 - 6$	$2(3^2 + 9)$ 15 -90 81 $2 + 6 \cdot 5 + 1$	-50 16 39 81 $(2 + 6)(5 + 1)$

Reading Strategies

1. true
2. false
3. false
4. true
5. false
6. false
7. true
8. true

LESSON 1-6

Practice A

1. 13
2. 5
3. 37
4. 1
5. 88
6. -72
7. -2
8. 69
9. -5
10. -25
11. -7
12. 32
13. 6
14. $8 + |-13|$
15. $18 \div (-1 \cdot 2)$
16. $-7(8 - n)$
17. 592

Practice B

1. 22
2. 23
3. 10
4. -9
5. -6
6. -2
7. -15
8. -48
9. -5
10. 67
11. $6(3 + 20)$
12. $|m - (-15)|$
13. $\frac{-18}{-2+d}$
14. 42.8°C
15. -2.0°F

Practice C

1. 16
2. -11
3. 30
4. -2
5. -2
6. $\frac{1}{2}$
7. 82
8. 29
9. 2
10. $\frac{1}{4}$
11. $x - (-8 \cdot 6)$

12. Divide r by 4, add 1, raise that sum to 40, and multiply by P .

13. 112 in^2

Review for Mastery

1. 20; 23; 21
2. 16; 4; 7
3. 3; 9; 1
4. 9
5. -1
6. 14
7. 7
8. 97
9. 30
10. 13
11. 30
12. 16
13. 17.8 cm

Challenge

7	10	3	∞
11	1	9	81
4	14	9	91
6	16	12	3

Problem Solving

1. 353.2 cm^2
2. Possible answer:
 $(1500 + 1463 + 2260) \div 3;$
1741
3. 720°
4. 135°
5. B
6. H
7. B

Reading Strategies

1. 19
2. -1
3. -40
4. 6
5. 1600
6. 2

LESSON 1-7

Practice A

1. 30
2. 60
3. 38
4. 1600
5. 20
6. -560
7. 10; 275
8. 15; 300