

# ORDER OF OPERATIONS WITH INTEGERS

## EXERCISES 1-6

A

1. Simplify.

- |                              |                                 |
|------------------------------|---------------------------------|
| a) $(+4) + (-3)(-2)$         | b) $(-5)(-4) \div (-2)$         |
| c) $(-18) \div (+3) + (-11)$ | d) $(-6) + (-12) \div (+4)$     |
| e) $(-6)(0) \div (-4)$       | f) $(+11) - (+9) \div (-3)$     |
| g) $(-21) \div (+7)(-5)$     | h) $(-1)(-8) \div (+2)$         |
| i) $(-7) - (-5)(-3)$         | j) $(-3) \times (-4) \div (-6)$ |

B

2. Simplify.

- a)  $[(-10) + (-2)] \div (+6) - (+4)$   
 b)  $(-8) + (+10)[(-12) - (-7)]$   
 c)  $[(-20) + (+4)] \times [(-10) - (-6)]$   
 d)  $(-16) \div (-2) + (-8)(+3)$

3. Use brackets with the expression  $3 + 5 \times 4 - 2$  so that it simplifies to each value.

- a) 16                      b) 21                      c) 30                      d) 13

4. Simplify.

- |                             |                                 |
|-----------------------------|---------------------------------|
| a) $3(-2 + 6) - 5(4 - 1)$   | b) $(-5)(-4) + (-6)(3)$         |
| c) $-2(-4 + 3) + 3(-1 - 5)$ | d) $(-3)(-1)(5) - (-2)(-4)(-1)$ |
| e) $5(2 - 6)(2 - 6)$        | f) $7(7 - 2) - 5(-3 - 8) + 19$  |

5. Simplify.

- |   |   |
|---|---|
| a) $\frac{(-15)}{3} - \frac{(-10)}{5}$    | b) $\frac{(-7) + 3(-1 + 4)}{-2}$                          |
| c) $\frac{4(-5 + 3) - 2(-1 + 5)}{-6 + 2}$ | d) $\frac{35 - 81}{27 - 4} - \frac{(-4)(3 - 10)}{8 - 15}$ |

6. Use brackets with each expression so that it simplifies to the answer given.

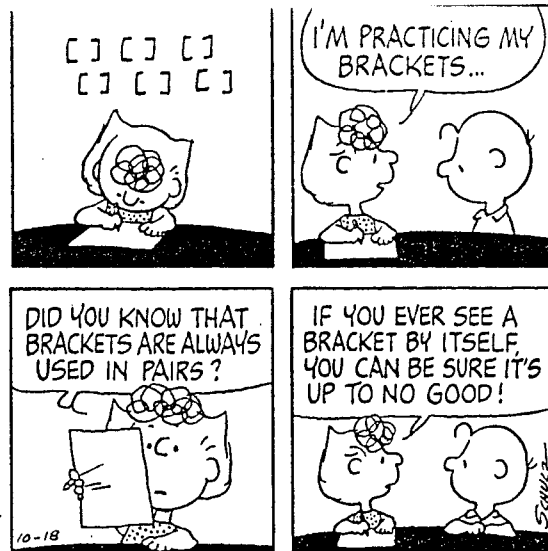
- a)  $1 + 3 \times 5 + 7$ ; answer 27  
 b)  $4 + 4 + 4 \times 4$ ; answer 48  
 c)  $2 \times 4 + 6 + 8$ ; answer 28  
 d)  $5 + 5 \times 5 + 5$ ; answer 100  
 e)  $48 \div 8 - 2 \times 3$ ; answer 24

7. Simplify.

- |                                     |  |
|-------------------------------------|--|
| a) $(12 + 8) \div (2 - 6)$          | b) $(-3 + 4)(8 - 10) - (7 - 9)(4 - 1)$             |
| c) $(6 - 2 + 3)(-7 + 5 - 1)$        | d) $(4 - 9)(2 + 3) + (8 - 2)(-3 + 2)$              |
| e) $\frac{(-5 + 2)(-4 - 6)}{3 - 9}$ | f) $\frac{5(-3 - 4) - (-6)(13 - 6)}{(-1)(11 - 4)}$ |

8. Simplify.

- a)  $5(-4) - [3(-6) + (-3) - 4(2(-4) - 7)] + 3(-8)$   
 b)  $-2[-7 - 3(4) + 5 - 2(-1)] + 3(-6 + 8)$   
 c)  $4[-6(-2 - 7) - 5(7 + 2)]$   
 d)  $-7(-4) - 2[-3(-4 + 6) + 6(7 - 3(-4))] - 8(-4)$



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- A  
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S  
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S**
- Exercises 1-6, page 29
1. a) 10    b) -10    c) -17    d) -9    e) 0  
 f) 14    g) 15    h) 4    i) -22    j) -2
2. a) -6    b) -58    c) 64    d) -16
3. a)  $(3 + 5) \times (4 - 2)$     b)  $3 + (5 \times 4) - 2$   
 c)  $(3 + 5) \times 4 - 2$     d)  $3 + 5 \times (4 - 2)$
4. a) -3    b) 2    c) -16    d) 23    e) 80    f) 109
5. a) -3    b) -1    c) 4    d) 2
6. a)  $(1 + 3) \times 5 + 7$     b)  $(4 + 4 + 4) \times 4$   
 c)  $2 \times (4 + 6) + 8$     d)  $(5 + 5) \times (5 + 5)$   
 e)  $48 \div (8 - 2) \times 3$
7. a) -5    b) 4    c) -21    d) -31    e) -5    f) -1
8. a) -83    b) 30    c) 36    d) -156