

Review - Unit Test #2

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 1. Write a multiplication expression for $(-6) + (-6) + (-6)$.
 a. -18 b. $(-3) \times (-6)$ c. $(+3) \times (-6)$ d. $+18$

- _____ 2. This tile models $+1$. This tile models -1 .
 I have 13 sets of 3 black tiles. What integer do these tiles represent?
 a. $+39$ b. -39 c. $+16$ d. $+10$

- _____ 3. Find the product $(-7) \times (+4)$. Use a number line if necessary.
 a. 28 b. -28 c. 3 d. -3

- _____ 4. Replace with an integer to make the equation true.
 $\square \times (-5) = -30$
 a. $+6$ b. -6 c. -25 d. $+25$

- _____ 5. Replace with an integer to make the equation true.
 $(+30) \times \square = -150$
 a. $+5$ b. -5 c. -120 d. $+120$

- _____ 6. Find this product. $(+5)(-3)$
 a. -13 b. -17 c. -15 d. $+25$

- _____ 7. Find this product. $(-7)(-4)$
 a. $+26$ b. $+27$ c. $+30$ d. $+28$

- _____ 8. Write the integer division modelled by this number line.



- a. $(+30) - (+6) = +24$ c. $(+30) - (+5) = +25$
 b. $(+30) = (+5)(+6)$ d. $(+30) \div (+5) = +6$

- _____ 9. Find the quotient $(-18) \div (+6)$. Use a number line if it helps.
 a. -3 b. $+3$ c. -12 d. -24

- _____ 10. Find this quotient. $(+28) \div (-7)$
 a. -35 b. $+4$ c. $+35$ d. -4

- _____ 11. Find this quotient. $(-156) \div (+12)$
 a. -13 b. -12 c. -15 d. -8

Name: _____

ID: A

- _____ 12. Evaluate. $24 + 4(-7)$
a. 52 b. -4 c. -196 d. 21
- _____ 13. Evaluate. $9 + (-7) - (-4)$
a. 6 b. -2 c. 12 d. 20

Short Answer

14. Find the product of -14 and $+5$.
15. Find the product of -3 and -20 .
16. Write a related multiplication equation for $(-16) \div (+2) = -8$.
17. Calculate the mean of the bank deposits and withdrawals.
 $+\$18, -\$5, -\$4, +\$17, +\$10, -\6
18. Evaluate. $\frac{(7)(9) - (-1)}{8}$
19. Evaluate. $[5 - 2(-9)] \times [(-2)(-9) - 23]$

Problem

20. Write -15 as the product of 2 integers. Find all possible answers.
21. Explain how you could predict the sign of the product $(-8)(+9)(+7)(-4)$ without actually multiplying.
22. Noreen borrowed $\$9$ every week. She now owes $\$72$.
For how many weeks did she borrow money?
a) Write this problem as a division expression using integers.
b) Solve the problem.
Explain your work.
23. Add brackets to make each statement true.
 $(-128) \div (+8) \div (-4) \div (+2) = +8$
 $(-128) \div (+8) \div (-4) \div (+2) = +32$
 $(-128) \div (+8) \div (-4) \div (+2) = +128$
24. Add brackets to make each statement true.
 $8 + 5 \times (-6) - 4 = -82$
 $8 + 5 \times (-6) - 4 = -42$
 $8 + 5 \times (-6) - 4 = -130$

Order Of Operations With Integers

Answer Section

MULTIPLE CHOICE

1. ANS: B PTS: 1 DIF: Easy
REF: 2.5 Order of Operations with Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding | Procedural Knowledge
2. ANS: B PTS: 1 DIF: Moderate
REF: 2.5 Order of Operations with Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding | Procedural Knowledge
3. ANS: C PTS: 1 DIF: Moderate
REF: 2.5 Order of Operations with Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding | Procedural Knowledge

SHORT ANSWER

4. ANS:
a) Multiply: 5×4
b) Divide: $15 \div 5$

PTS: 1 DIF: Easy REF: 2.5 Order of Operations with Integers
LOC: 8.N7 TOP: Number KEY: Procedural Knowledge | Communication

5. ANS:
 $6(12 - 6) - 20 = 6(6) - 20$
 $= 36 - 20$
 $= 16$

PTS: 1 DIF: Moderate REF: 2.5 Order of Operations with Integers
LOC: 8.N7 TOP: Number KEY: Conceptual Understanding | Procedural Knowledge

6. ANS:
 $\frac{(7)(9) - (-1)}{8} = \frac{63 - (-1)}{8}$
 $= \frac{64}{8}$
 $= 8$

PTS: 1 DIF: Moderate REF: 2.5 Order of Operations with Integers
LOC: 8.N7 TOP: Number KEY: Conceptual Understanding | Procedural Knowledge

7. ANS:

$$\begin{aligned}\frac{-28}{(-5)(-6) - 2} &= \frac{-28}{30 - 2} \\ &= \frac{-28}{28} \\ &= -1\end{aligned}$$

PTS: 1

DIF: Moderate

REF: 2.5 Order of Operations with Integers

LOC: 8.N7

TOP: Number

KEY: Conceptual Understanding | Procedural Knowledge

8. ANS:

$$\begin{aligned}\frac{9(-8) \div 2(-3)}{2(-3)} &= \frac{(-72) \div (-6)}{-6} \\ &= \frac{12}{-6} \\ &= -2\end{aligned}$$

PTS: 1

DIF: Moderate

REF: 2.5 Order of Operations with Integers

LOC: 8.N7

TOP: Number

KEY: Conceptual Understanding | Procedural Knowledge

9. ANS:

16

PTS: 1

DIF: Difficult

REF: 2.5 Order of Operations with Integers

LOC: 8.N7

TOP: Number

KEY: Conceptual Understanding | Procedural Knowledge

10. ANS:

$$\begin{aligned}[5 - 2(-9)] \times [(-2)(-9) - 23] &= (5 + 18) \times (18 - 23) \\ &= 23 \times (-5) \\ &= -115\end{aligned}$$

PTS: 1

DIF: Difficult

REF: 2.5 Order of Operations with Integers

LOC: 8.N7

TOP: Number

KEY: Conceptual Understanding | Procedural Knowledge

PROBLEM

11. ANS:

$$\begin{aligned}(8 + 5) \times (-6) - 4 &= -82 \\ 8 + 5 \times [(-6) - 4] &= -42 \\ (8 + 5) \times [(-6) - 4] &= -130\end{aligned}$$

PTS: 1

DIF: Difficult

REF: 2.5 Order of Operations with Integers

LOC: 8.N7

TOP: Number

KEY: Procedural Knowledge | Problem-solving Skills

12. ANS:

a) Jamie: $3 \times (+6) + 4 \times (+7) + 3 \times (-8)$
 $= (+18) + (+28) + (-24)$
 $= 22$

Corinne: $5 \times (+6) + 2 \times (+7) + 3 \times (-8)$
 $= (+30) + (+14) + (-24)$
 $= 20$

b) Since $22 > 20$, Jamie won.

PTS: 1

DIF: Difficult

REF: 2.5 Order of Operations with Integers

LOC: 8.N7

TOP: Number

KEY: Communication | Problem-solving Skills