

Math 8 Chapter 2 Rev Pack v1

Answer Section

MULTIPLE CHOICE

1. ANS: C PTS: 1 DIF: Easy
REF: 2.1 Using Models to Multiply Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
2. ANS: A PTS: 1 DIF: Easy
REF: 2.1 Using Models to Multiply Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
3. ANS: D PTS: 1 DIF: Easy
REF: 2.1 Using Models to Multiply Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
4. ANS: B PTS: 1 DIF: Easy
REF: 2.1 Using Models to Multiply Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
5. ANS: C PTS: 1 DIF: Easy
REF: 2.1 Using Models to Multiply Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
6. ANS: A PTS: 1 DIF: Moderate
REF: 2.1 Using Models to Multiply Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding | Problem-solving Skills
7. ANS: B PTS: 1 DIF: Moderate
REF: 2.1 Using Models to Multiply Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding | Problem-solving Skills
8. ANS: C PTS: 1 DIF: Easy
REF: 2.2 Developing Rules to Multiply Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
9. ANS: D PTS: 1 DIF: Easy
REF: 2.2 Developing Rules to Multiply Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
10. ANS: A PTS: 1 DIF: Moderate
REF: 2.2 Developing Rules to Multiply Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding | Problem-solving Skills
11. ANS: B PTS: 1 DIF: Moderate
REF: 2.2 Developing Rules to Multiply Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
12. ANS: B PTS: 1 DIF: Moderate
REF: 2.2 Developing Rules to Multiply Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
13. ANS: A PTS: 1 DIF: Easy
REF: 2.3 Using Models to Divide Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
14. ANS: C PTS: 1 DIF: Easy
REF: 2.3 Using Models to Divide Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding

15. ANS: A PTS: 1 DIF: Easy
REF: 2.3 Using Models to Divide Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
16. ANS: A PTS: 1 DIF: Moderate
REF: 2.3 Using Models to Divide Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding | Problem-solving Skills
17. ANS: D PTS: 1 DIF: Easy
REF: 2.4 Developing Rules to Divide Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
18. ANS: C PTS: 1 DIF: Easy
REF: 2.4 Developing Rules to Divide Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
19. ANS: B PTS: 1 DIF: Easy
REF: 2.4 Developing Rules to Divide Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
20. ANS: A PTS: 1 DIF: Easy
REF: 2.4 Developing Rules to Divide Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
21. ANS: C PTS: 1 DIF: Easy
REF: 2.4 Developing Rules to Divide Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
22. ANS: B PTS: 1 DIF: Easy
REF: 2.4 Developing Rules to Divide Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
23. ANS: D PTS: 1 DIF: Easy
REF: 2.4 Developing Rules to Divide Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
24. ANS: A PTS: 1 DIF: Easy
REF: 2.4 Developing Rules to Divide Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding
25. ANS: C PTS: 1 DIF: Moderate
REF: 2.4 Developing Rules to Divide Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding | Problem-solving Skills
26. ANS: A PTS: 1 DIF: Moderate
REF: 2.5 Order of Operations with Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding | Procedural Knowledge
27. ANS: C PTS: 1 DIF: Moderate
REF: 2.5 Order of Operations with Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding | Procedural Knowledge
28. ANS: A PTS: 1 DIF: Moderate
REF: 2.5 Order of Operations with Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding | Procedural Knowledge
29. ANS: C PTS: 1 DIF: Moderate
REF: 2.5 Order of Operations with Integers LOC: 8.N7
TOP: Number KEY: Conceptual Understanding | Procedural Knowledge

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

SHORT ANSWER

31. ANS:
 $(-3) \times (-20) = 60$
- PTS: 1 DIF: Easy REF: 2.1 Using Models to Multiply Integers
 LOC: 8.N7 TOP: Number KEY: Conceptual Understanding
32. ANS:
 The products in a), c), and d) are negative.
- PTS: 1 DIF: Easy REF: 2.1 Using Models to Multiply Integers
 LOC: 8.N7 TOP: Number KEY: Conceptual Understanding
33. ANS:
 -10°C
- PTS: 1 DIF: Moderate REF: 2.3 Using Models to Divide Integers
 LOC: 8.N7 TOP: Number KEY: Conceptual Understanding | Problem-solving Skills
34. ANS:
 negative
- PTS: 1 DIF: Easy REF: 2.4 Developing Rules to Divide Integers
 LOC: 8.N7 TOP: Number KEY: Conceptual Understanding
35. ANS:
 $(+132) \div (-11) = -12$
 $(+132) \div (-12) = -11$
- PTS: 1 DIF: Moderate REF: 2.4 Developing Rules to Divide Integers
 LOC: 8.N7 TOP: Number KEY: Conceptual Understanding
36. ANS:
 $(+24) \div (-8) = -3$
- PTS: 1 DIF: Moderate REF: 2.4 Developing Rules to Divide Integers
 LOC: 8.N7 TOP: Number KEY: Conceptual Understanding | Problem-solving Skills
37. ANS:
 $-1, -5, -11, -55$
- PTS: 1 DIF: Moderate REF: 2.4 Developing Rules to Divide Integers
 LOC: 8.N7 TOP: Number KEY: Conceptual Understanding | Problem-solving Skills

38. ANS:

$$\begin{aligned}\frac{(7)(9) - (-1)}{8} &= \frac{63 - (-1)}{8} \\ &= \frac{64}{8} \\ &= 8\end{aligned}$$

PTS: 1

DIF: Moderate

REF: 2.5 Order of Operations with Integers

LOC: 8.N7

TOP: Number

KEY: Conceptual Understanding | Procedural Knowledge

PROBLEM

39. ANS:

There are 8 ways:

$$(+1) \times (-6) = -6 \qquad (-6) \times (+1) = -6$$

$$(-1) \times (+6) = -6 \qquad (+6) \times (-1) = -6$$

$$(+2) \times (-3) = -6 \qquad (-3) \times (+2) = -6$$

$$(-2) \times (+3) = -6 \qquad (+3) \times (-2) = -6$$

PTS: 1

DIF: Difficult

REF: 2.1 Using Models to Multiply Integers

LOC: 8.N7

TOP: Number

KEY: Communication | Problem-solving Skills

40. ANS:

Factors for 15 are: 1, 3, 5, 15

Since -15 is negative, it is a product of a positive integer and a negative integer.

$$-15 = (+1)(-15)$$

$$-15 = (-1)(+15)$$

$$-15 = (+3)(-5)$$

$$-15 = (-3)(+5)$$

PTS: 1

DIF: Difficult

REF: 2.2 Developing Rules to Multiply Integers

LOC: 8.N7

TOP: Number

KEY: Communication | Problem-solving Skills

41. ANS:

Methods may vary. Sample:

Find 3 natural numbers that have a product of 24.

There are 6 possible sets:

1, 1, 24; 1, 2, 12; 1, 3, 8; 1, 4, 6; 2, 2, 6; 2, 3, 4

Since the product of the 3 integers is negative, 1 or all 3 of the integers are negative.

$$(-2)(-4)(-6) = -24$$

$$(-2) + (-4) + (-6) = -12$$

So, the 3 integers are -2 , -4 , and -6 .

PTS: 1

DIF: Difficult

REF: 2.2 Developing Rules to Multiply Integers

LOC: 8.N7

TOP: Number

KEY: Communication | Problem-solving Skills

42. ANS:

The next 2 terms are: +9, -3

To get to the next term, divide by -3.

PTS: 1

DIF: Moderate

REF: 2.3 Using Models to Divide Integers

LOC: 8.N7

TOP: Number

KEY: Communication | Problem-solving Skills

43. ANS:

Answers may vary. Sample:

$$(+144) \div (+12) \div (-12) = -1$$

$$(+144) \div (-6) \div (+24) = -1$$

PTS: 1

DIF: Difficult

REF: 2.4 Developing Rules to Divide Integers

LOC: 8.N7

TOP: Number

KEY: Problem-solving Skills