Multiplication of integers:

i. $-3 \times 0 =$ 0

ii. $-9 \times 11 =$ -99

iii. $-17 \times -6 =$ 102

iv. $-8 \times 10 =$ -80

v. $3 \times -9 =$ -27

vi. $6 \times -6 =$ -36

vii. $-6 \times 8 =$ -48

viii. $-2 \times -9 =$ 18

ix. $-5 \times -3 =$ 15

x. $10 \times -1 =$ -10

xi. $8 \times -6 =$ -48

xii. $-8 \times 0 =$ 0

xiii. $3 \times -12 =$ -36

xiv. $-6 \times -12 =$ 72

xv. $-8 \times -18 =$ 144

xvi. $27 \times -2 =$ - 54

xvii. $-15 \times -4 =$ 60

xviii. $-13 \times -2 =$ + 26

xix. $-51 \times 4 =$ - 204

xx. $19 \times 5 =$ 95

1. Division of integers

i. $-110 \div -11 =$ 10

ii. $90 \div -9 =$ -10

iii. $50 \div 5 =$ 10

iv. $-48 \div 12 =$ -4

v. $-100 \div 10 =$ -10

vi. $-72 \div -6 =$ 12

vii. $-48 \div -6 =$ 8

viii. $43 \div 1 =$ 43

ix. $56 \div -8 =$ -7

x. $-81 \div 9 =$ -9

xi. $-28 \div 4 =$ -7

xii. $32 \div -8 =$ -4

xiii. $-25 \div -5 =$ 5

xiv. $-9 \div -3 =$ 3

xv. $24 \div -4 =$ -6

xvi. $-36 \div -4 =$ 9

xvii. $18 \div -2 =$ -9

xviii. $16 \div -4 =$ -4

xix. $22 \div -2 =$ -11

xx. $-10 \div -5 =$ 2

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Unit 1

Name: Answer key · Lesson 1.4 Grade 6A

Date: _____ Highest Common Factor Worksheet (2)

Objective(s): Understand highest common factor (numbers less than 100)

Question one.

(a) List all the factors of 10 ①, 2, ⑤, 10.

(b) List all the factors of 15 ①, 3, ⑤, 15.

(c) Write down all the common factors of 10 and 15. 1, 5.

Question two

(a) List all the factors of 12 ①, ②, ③, 4, ⑥, 12.

(b) List all the factors of 18 ①, ②, ③, ⑥, 9, 18.

(c) Write down all the common factors of 12 and 18. 1, 2, 3, 6.

Question three: Write down all the common factors of each of these pairs of numbers.

(a) 15 and 20

15: ①, 3, ⑤, 15

20: ①, 2, 4, ⑤, 10, 20

Common factors: 1, 5.

(b) 16 and 24

16: 1, 2, 4, 8, 16
24; 1, 2, 3, 4, 6, 8, 12, 24

Common factors: 1, 2, 4, 8.

(c) 21 and 27

21: 1, 3, 7, 21
27: 1, 3, 9, 27

Common factors: 1, 3.

Question four

(a) List all the factors of 14 1, 2, 7, 14.

(b) List all the factors of 21 1, 3, 7, 21.

(c) Find the highest common factor (HCF) of 14 and 21. 7.

Question five: Find the highest common factor (HCF) of each of these pairs of numbers.

(a) 4 and 14

Factors of 4: 1, 2, 4

Factors of 14: 1, 2, 7, 14

HCF: 2.

(b) 16 and 28

Factors of 16: 1, 2, 4, 8, 16

Factors of 28: 1, 2, 4, 7, 14, 28

HCF: 4.

Question Six: Find the highest common factor (HCF) of each of these sets of numbers.

(a) 12, 6 and 15

Factors of 12: 1, 2, 3, 4, 6, 12

Factors of 6: 1, 2, 3, 6

Factors of 15: 1, 3, 5, 15

HCF: 3.

(b) 9, 36 and 45

Factors of 9: 1, 3, 9

Factors of 36: 1, 2, 3, 4, 6, 9, 12, 18, 36

Factors of 45: 1, 3, 5, 9, 15, 45

HCF: 9.

Question seven: Martin says that 6 is a common factor of 42, 36 and 50. Is he correct?

42 : 1, 2, 3, 6, 7, 14, 21, 42

36 : 1, 2, 3, 4, 6, 9, 12, 18, 36

50 : 1, 2, 5, 10, 25, 50

No, he is Not.

6 is common factor of 42 and 36

Not the of them. (42, 36, 50).

Three

Question eight: Sam has completed his math's homework. Can you spot any mistakes?

Find the highest common factor of 18 and 36

Factors of 18: 2, 3, 6, 9

Factors of 36: 2, 3, 4, 6, 9, 12, 18

HCF = 9

→ Factors of 18: 1, 2, 3, 6, 9, 18

Factors of 36: 1, 2, 3, 4, 6, 9, 12, 18, 36.

He forgot to write 1, and the Number itself

So the HCF is Not 9 Its 18.

Unit 1

Name: _____

Lesson 1.3

Date: _____

Lowest Common Multiple

LEAST COMMON MULTIPLE

ANSWERS

1)	LCM (5, 7, 10) =	70
2)	LCM (6, 8, 9) =	72
3)	LCM (3, 10, 5) =	30
4)	LCM (9, 6, 12) =	36
5)	LCM (4, 5, 7) =	140
6)	LCM (9, 15, 12) =	180
7)	LCM (20, 24, 12) =	120
8)	LCM (15, 10, 4) =	60
9)	LCM (30, 40, 20) =	120
10)	LCM (12, 15, 40) =	120

Unit 1

Name: Answer key · Lesson 1.3 Grade 6A

Date: _____ Lowest Common Multiple Homework (2)

List out the first two common multiples for each pair of numbers.

1) 3, 4

Multiples of 3: 3, 6, 9, (12), 15, 18, 21, (24)

Multiples of 4: 4, 8, (12), 16, 20, (24), 28, ...

Common multiples: 12 and 24

2) 2, 5

Multiples of 2: 2, , 6, 8, (10), 12, 14, 16, 18, (20)

Multiples of 5: 5, (10), 15, (20), 25, 30

Common multiples: 10 and 20

3) 12, 8

Multiples of 12: 12, (24), 36, (48), 60, 72, 84, 96

Multiples of 8: 8, 16, (24), 32, 40, (48), 56, 64,

Common multiples: 24 and 48.

4) 4, 6

Multiples of 4: 4, 8, (12), 16, 20, (24), 28, 32, 36, 40

Multiples of 6: 6, (12), 18, (24), 30, 36, 42, 48

Common multiples: 12 and 24

5) 5, 3

Multiples of 5: 5, 10, (15), 20, 25, (30), 35

Multiples of 3: 3, 6, 9, 12, (15), 18, 21, 24, 27, (30)

Common multiples: 15 and 30.

Least common multiple of 2 numbers (2-30)

Grade 6 Factoring Worksheet

Find the least common multiple (LCM).

1. 18 | 18 | 18
   9 | 9, 18 |

2. 30 | 30, 60, 90, 120 | 120
   8 | 8, 16, 24, 32, 40 |

3. 19 | 19, 38, 57 | 57
   3 | 3, 6, 9, 12, 15 |

4. 4 | 4, 8, 12 | 12
   3 | 3, 6, 9, 12 |

5. 6 | 6, 12, 18, 24, 30 | 84
   28 | 28, 56, 84 |

6. 20 | 20, 40, 60 | 60
   30 | 30, 60 |

7. 30 | 30, 60, 90, 120, 150 | 390
   13 | 13, 26, 39, 52, 65 |

8. 6 | 6 | 6
   2 | 2, 4, 6 |

9. 3 | 3, 6, 9, 12 | 12
   12 | 12 |

10. 9 | 9, 18, 27, 36, 45 | 198
    22 | 22, 44, 66, 88, 110 |

11. 5 | 5, 10, 15 | 15
    15 | 15 |

12. 15 | 15, 30, 45, 60, 75 | 345
    23 | 23, 46, 69, 92, 115 |

13. 6 | 6, 12, 18 | 18
    9 | 9, 18 |

14. 26 | 26 | 26
    13 | 13, 26 |

15. 15 | 15, 30, 45, 60, 75 | 120
    8 | 8, 16, 24, 32, 40 |

16. 3 | 3, 6, 9, 12, 15 | 30
    10 | 10, 20, 30 |

Unit 1

Name: Answer key · Lesson 1.1, 1.2 · Grade 6A

Date: _____ · Integers · Homework (1)

Solve the following

$3 + (-8) = -5$

$(-9) + (+4) = -5$

$7 - 5 = 2$

$6 + (-4) = 10$

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

$(-4) - 10 = -14$

$6 - 5 = 1$

$(-2) - 5 = -7$

$(-2) - 7 = -9$

$(-8) + (-2) = -10$

$8 + 6 = 14$

$(-9) + 10 = 1$

$8 + (-10) = -2$

$2 + (+10) = 12$

$8 - 5 = 3$

$8 + (+2) = 10$

$1 + (+7) = 8$

$4 + 2 = 6$

$(-2) + 6 = 4$

$(-4) - 4 = -8$

$9 + (+7) = 16$

$(-1) - 0 = -1$

$7 - 5 = 2$

$(-5) + (-10) = -15$

$(-1) + (+2) = 1$

$(-5) + (+6) = 1$

$9 + (+9) = 18$

Perform the given operations with integers.

1. $6 + (-1) = 5$
2. $6 \times (-2) = -12$
3. $(-3) + (-2) = -5$
4. $(-25) \div (-5) = 5$
5. $12 \overset{+}{(-63)} = 75$
6. $(-25) + (-77) = -102$
7. $(-6) \div (-3) = 2$
8. $8 \times 3 = 24$
9. $(-5) + (-1) = -6$
10. $(-7) - 9 = -16$
11. $(-49) \div (-7) = 7$
12. $24 \div (-3) = -8$
13. $(-6) + 6 = 0$
14. $(-9) \times (-5) = 45$
15. $7 \overset{+}{(-5)} = 12$
16. $(-4) \div (-2) = 2$
17. $(-7) \overset{+}{(-7)} = 0$
18. $9 \overset{+}{(-2)} = 11$
19. $7 \overset{+}{(-9)} = 16$
20. $1 + (-6) = -5$
21. $12 \div (-2) = -6$
22. $4 \div (-4) = -1$
23. $4 - 4 = 0$
24. $24 \div (-4) = -6$
25. $(-15) \div (-3) = 5$
26. $(-6) + (-9) = -15$
27. $(-32) \div 4 = -8$
28. $(-7) \times 7 = -49$
29. $8 \times (-7) = -56$
30. $(-7) + (-9) = -16$
31. $(-11) - 8 = -19$
32. $8 \div (-2) = -4$
33. $21 \overset{+}{(-3)} = 24$

Unit 1

Name: Answer key. Lessons 1.1, 1.2 and 1.3 Grade 6A

Date: _____ Quiz (1)

Q1. Work out the following.

a. $-48 + -73 = -121$

Same signs => we add then we put the minus sign.

b. $123 - 393 = -270$

↳ different signs we subtract.

Q2. Work out the missing integers.

a. $6 + \underline{-10} = -4$

$-4 - 6 = -10$

b. $\underline{45} - 10 = 35$

$+10 \quad +10$

$\square = 45$

Q3. The product of two integers is -10.
Find the possible values of the two integers.

$-1 \times 10 = -10$

$1 \times -10 = -10$

$2 \times -5 = -10$

$-2 \times 5 = -10.$

Q4. Work out the missing.

a. $-2 \times$ 7 $= -14$

$-14 \div -2 = 7$

b. $18 \div$ -2 $= -9$

$18 \div -9 = -2$

Q5. Find the LCM of 10 and 15.

10: 10, 20, (30), 40, 50, (60), 70, 80, (90)

15: 15, (30), 45, (60), 75, (90)

The LCM is 30 .

- 7+−4=+3 (7 − 4 = 3, sign is +)
- −9+5=−4 (9 − 5 = 4, sign is -)

Work out:

−4+−7 −11

−9+−5 −14

7+−3 4

20+−5 15

− 5+ 12 7

− 14+ − 22 −36

2 + − 8 −6

2. Take the opposite of the number b

3. Then add the integers using the ru

Tip: Always think: *"Subtracting a numbe opposite."*

Work out:

1. Simple subtraction:

8−5 3

7 − 12 −5

2. Subtracting positive from negative

-6-4 $\quad -10$

-9-2 $\quad -11$

3. Subtracting negative numbers:

5 + (-3) $\quad 8$

-7 + (-2) $\quad -5$

$-7+2$

4. Mixed practice:

10 + (-5) $\quad 15$

4 + (-6) $\quad 10$

-3-7 $\quad -10$

0 + (-8) $\quad 8$

Work out the missing integers.

a. $x+7=12$

$12-7=5$

$x=5$

b. $-5+y=-9$

$-9+5=-4$

c. $8+z=15$

$15-8=7$

d. $12-y=7$

$12-7=y$

$y=5$

e. $-3-x=4$

$-3-4=x$

$x=-7$