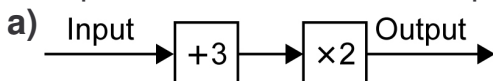
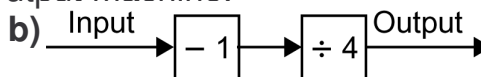


Lesson 1: Input/Output Machines

1. Complete the table for each Input/Output machine.



Input	Output
1	
3	
5	
7	
9	



Input	Output
1	
5	
9	
13	
17	

2. Draw an Input/Output machine with 2 operations that would give the numbers in the table.

Input	Output
4	1
8	3
12	5
16	7

Lesson 2: Number Patterns

1. Write the first 6 terms of each pattern. Start at 12 each time.

a) Subtract 4, then multiply by 3.

b) Multiply by 3, then subtract 4.

2. Write each pattern rule.

Then write the next 2 terms.

a) 6, 10, 18, 34, 66, ...

b) 2, 9, 30, 93, 282, ...

c) 4, 6, 14, 46, 174, ...

d) 12, 16, 32, 96, 352, ...

Extra Practice 2**Lesson 3: Patterns in Division**

1. Which numbers are divisible by 4? By 6? How do you know?

- a) 92 b) 114 c) 216 d) 420 e) 636
f) 680 g) 1026 h) 1252 i) 1278 j) 3036

2. Draw a Venn diagram with 2 loops.

Label the loops "Divisible by 3" and "Divisible by 5."

Place the numbers from 1 to 50 in the correct loop.

What is true about all the numbers in the region where the loops overlap?

Lesson 4: Solving Equations

1. Find the missing number.

- a) $25 - \square = 12$ b) $56 = \square \times 8$ c) $\square + 12 = 20$
d) $45 \div \square = 5$ e) $17 = \square - 25$ f) $18 \times \square = 198$
g) $22 - 6 = 3 + x$ h) $5 \times 6 = 3 \times y$ i) $3 + 12 = 3 \times s$

2. Replace O and \square with numbers to make an equation.

$$O \times \square = 24$$

How many different ways can you do this?

Master 1.22

Extra Practice 3

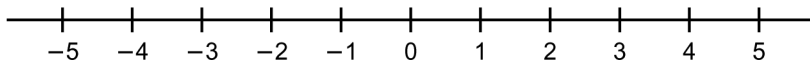
Lesson 5: Exploring Integers

1. Write an integer to represent each situation.
 - a) The temperature is 8 degrees below 0°C .
 - b) The valley was 700 m below sea level.
 - c) The mountain was 1300 m above sea level.
 - d) Chuck's golf score was 5 below par.

2. A photo of a close finish of a race showed:
 - Janette 3 m ahead of the finish line
 - Simon 1 m ahead of the finish line
 - Brian 2 m behind the finish line
 - Nicole 4 m behind the finish line

Suppose 0 represents the finish line.

Show the position of each racer on the number line.



Master

Extra Practice Sample Answers

Extra Practice 1 – Master 1.20

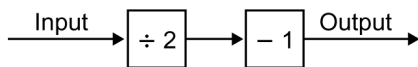
Lesson 1

a)

Input	Output
1	8
3	12
5	16
7	20
9	24

b)

Input	Output
1	0
5	1
9	2
13	3
17	4



Lesson 2

- a) 12, 24, 60, 168, 492, 1464

b) 12, 32, 92, 272, 812, 2432
- a) 130, 258; Subtract 1, then multiply by 2; or Multiply by 2, then subtract 2.

b) 849, 2550; Multiply by 3, then add 3.

c) 686, 2734; Multiply by 4, then subtract 10.

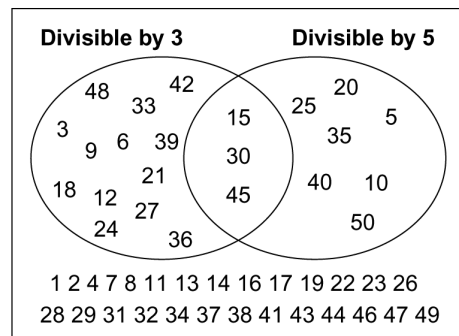
d) 1376, 5472; Subtract 8, then multiply by 4; or Multiply by 4, then subtract 32.

Extra Practice 2 – Master 1.21

Lesson 3

- Divisible by 4: 92, 680, 1252; The number represented by the ones and tens digits is divisible by 4.

Divisible by 6: 1026, 114, 1278; The number is divisible by 2 and by 3.



The numbers in the region where the loops overlap are multiples of 15.

Lesson 4

- a) 13 b) 7 c) 8

d) 9 e) 42 f) 11

g) 13 h) 10 i) 5
- 1×24 , 2×12 , 3×8 , 4×6 , or the reverse

Extra Practice 3 – Master 1.22

Lesson 5

- a) -8 b) -700

c) +1300 d) -5

