Extra Practice Sample Answers

Extra Practice 1 – Master 1.21

Master 1.27

Lesson 1: Number Patterns and Pattern Rules

**1. a)** 18, 21, 24…

**b)** 21, 28, 36…

**c)** 40, 38, 36…

**d)** 8, 6, 9...

**2.** 17

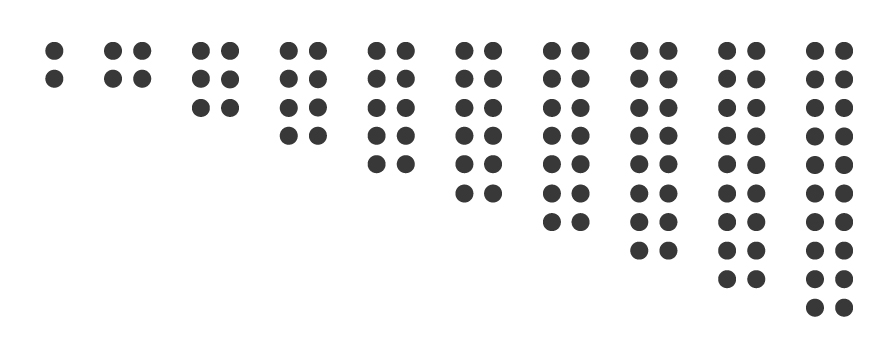
**3. a)** 10; Start at 2. Add 2 each time.

**b)** 6; Start at 2. Alternately add 2 then subtract 1.

**c)** 17; Start at 26. Subtract 3 each time.

**d)** 402; Start at 2. Add 100 each time.

**4. a)** For example:



The next 3 terms are 16, 18, 20...

**5.** Patterns will vary. For example:

3, 6, 9, 12, 15, 18, 21…; start at 3 and add 3 each time.

3, 6, 5, 8, 7, 10, 9 …; start at 3 and alternately add 3 and subtract 1.

**6.** 12.

Extra Practice 2 – Master 1.22

Lesson 2: Using Patterns to Solve Problems

**1.**

|  |  |
| --- | --- |
| Object | Number of Containers |
| 2 | 4 |
| 3 | 7 |
| 4 | 10 |
| 5 | 13 |
| 6 | 16 |
| 7 | 19 |
| 8 | 22 |
| 9 | 25 |

**2.**

|  |  |
| --- | --- |
| Seconds | Number of Fireworks |
| 10 | 4 |
| 20 | 8 |
| 30 | 12 |
| 40 | 16 |
| 50 | 20 |
| 60 | 24 |
| 70 | 28 |
| 80 | 32 |

It will take 80 s or 1 min and 20 s to launch   
32 fireworks.

**3.**

|  |  |
| --- | --- |
| Hours | Dollars per Hour |
| 1 | $8.25 |
| 2 | $16.50 |
| 3 | $24.75 |
| 4 | $33.00 |
| 5 | $41.25 |
| 6 | $49.50 |
| 7 | $57.75 |
| 8 | $66.00 |

Ethan will have to work 8 h to make enough money to buy a new helmet.

**4.** 14 squares

Extra Practice 3 – Master 1.23

Lesson 3: Using a Variable to Describe a Pattern

**1.**

|  |  |  |
| --- | --- | --- |
| Object | Number of containers | Term Value |
| 1 | 4 | 4 = 1 + 3 |
| 2 | 5 | 5 = 2 + 3 |
| 3 | 6 | 6 = 3 + 3 |
| 4 | 7 | 7 = 4 + 3 |
| 5 | 8 | 8 = 5 + 3 |
| 6 | 9 | 9 = 6 + 3 |

**2.** *t* + 3

**3.** Word problems will vary. For example: Six trucks were loaded with containers for a trip to Yellowknife. Truck number 1 held 4 containers. Each time another truck was loaded it held one more container than the truck before.

**4.**

|  |  |
| --- | --- |
| Term Number | Term Value |
| 1 | 100 |
| 2 | 99 |
| 3 | 98 |
| 4 | 97 |
| 5 | 96 |
| 6 | 95 |

**5.** 101 – *t*

**6.** For example: A bag of buttons had a mass of 101 g. Each time I removed a button, the mass of the bag decreased by 1 g.

Extra Practice 5 – Master 1.24

Lesson 5: Using a Variable to Write an Equation

**1. b)** and **d)**; Explanations will vary. For example:   
An equation is a mathematical sentence with an equal sign.

**2. c)**

Equations may vary.

**3.** *t* + 3 = 12; 12 – *t* = 3

**4.** *p* = 7 × 38; 38 × 7 = *p*

**5.** 5 × 15 = *s*, *s* ÷ 5 = 15

**6.** *p* = 63 ÷ 9; *p* × 9 = 63

Extra Practice 6 – Master 1.25

Lesson 6: Solving Equations Involving Addition and Subtraction

**1. a)** *n* = 3 **b)** *p* = 20   
 **c)** *d* = 12 **d)** *r* = 75

**2.** **a)** *s* = 48 + 2; 48 = *s* – 2

**b**) 100 – 42 = *p*; *p* + 42 = 100

**3.** **a)** *s* = 50

**b)** *p* = 58

**4.** Word problems will vary. For example:

**a)** My school had 12 dozen eggs for sale. We sold some, but had 100 eggs left. How many did we sell?

**b)** I had some books on my bookshelf. When I added 12 books, I had 38 altogether. How many books did I have originally?

**c)** There were 99 red balloons. One more was added. How many balloons were there then?

**d)** Ryan had 22 skater magazines. He sold 10 magazines online. How many magazines did he have left?

Extra Practice 7 – Master 1.26

Lesson 7: Solving Equations Involving Multiplication and Division

**1. a)** *g* = 2 **b)** *c* = 10   
**c)** *t* = 100 **d)** *p* = 12

**2. a)** 6 × *c* = 72; 72 ÷ *c* = 6

**b)** 5 × 12 = *r*; *r* ÷ 5 = 12

**3. a)** *c* = 12

**b)** *r* = 60

**4.** Word problems will vary. For example:

**a)** Melissa and Abigail ate the same number of crabs during the feast. The total number they ate was 26. How many did they each have?

**b)** Lynne had 144 pencils in 12 boxes. Each box contained the same number of pencils. How many were in each box?

**c)** An office building had 11 floors. Each floor had the same number of light fixtures. There were 88 light fixtures in total. How many light fixtures were on each floor?

**d)** Blair scored 200 points in a video game. He scored 25 points on each level. How many levels did he play to score 200 points?