

Grade 5 PRACTICE Test
Unit 6: Patterns

Name:

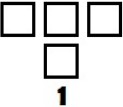
PART A: MULTIPLE CHOICE:

- What is the pattern rule for the expression $t - 7$?
 - a number multiplied by seven
 - seven more than a number
 - a number plus seven
 - seven less than a number

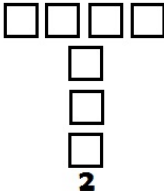
- Jenny is a professional dancer. She practices 4 hours per day. The following table of values shows her hours of practice over a 5 day period. Identify the error.

<input type="radio"/> Day 2		DAY	HOURS
<input type="radio"/> Day 3		1	4
<input type="radio"/> Day 4		2	8
<input type="radio"/> Day 5		3	12
		4	15
		5	20

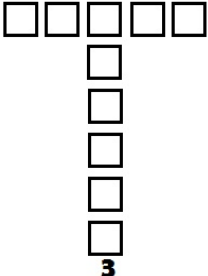
- If you keep building the T shape using square tile, how many tiles will there be in the 6th picture?



1



2

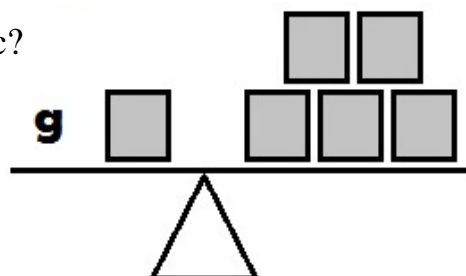


3

- 13
- 16
- 19
- 22

- Which equation is modeled in the graphic?

- $g + 1 = 6$
- $g + 1 = 5$
- $1 = 5$
- $g - 1 = 5$

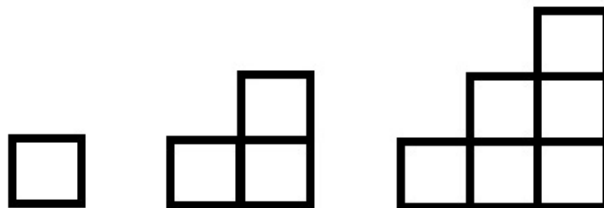


5. Complete the following descending pattern: 42, 35, 28...

- 14, 7, 0
- 21, 14, 7, 0
- 12, 6, 0
- 35, 42

6. The diagram shows a pattern formed by squares. How many squares would be needed to form the 5th figure in the pattern?

- 12
- 13
- 15
- 16



7. Solve the equation to find the value of h : $h + 15 = 26$

- 11
- 15
- 26
- 41

8. *PROBLEM: Sam spent 1 hour on his Xbox. He played "NHL13" for 36 minutes and the remaining time playing "Minecraft". How many minutes did he spend playing "Minecraft"?*

Which equation represents the problem?

- $13 + 36 = m$
- $60 + m = 1 \text{ hour } 36 \text{ minutes}$
- $60 + 36 = m$
- $m + 36 = 60$

9. Which of the following is an expression?

- $90 - f = 45$
- $8 + n$
- $y + 13 = 14$
- $r - 0 = 12$

PART B: PROBLEMS:

1. For each situation, write an equation, and then solve it.

(a) Mary has some muffins. She gives away 7 muffins, leaving her with 9.

Equation:

Solution:

(b) Harry has 12 stickers and Larry gives him some more stickers. Harry now has 16 stickers. How many stickers did Larry give Harry?

Equation:

Solution:

(c) Tara is 3 years older than her friend Sara. Sara is 18 years old. How old is Tara?

Equation:

Solution:

2. Consider the following equation: $36 - p = 32$.

Write a word problem for this equation involving cows. Yes, cows!

3. Extend the following number patterns and describe the pattern rule:

(a) 85, 80, 75, _____, _____, _____.

Pattern Rule: _____

(b) 37, 30, 23, _____, _____, _____.

Pattern Rule: _____

(c) 8, 15, 22, _____, _____, _____.

Pattern Rule: _____

(d) 6, 12, 18, _____, _____, _____.

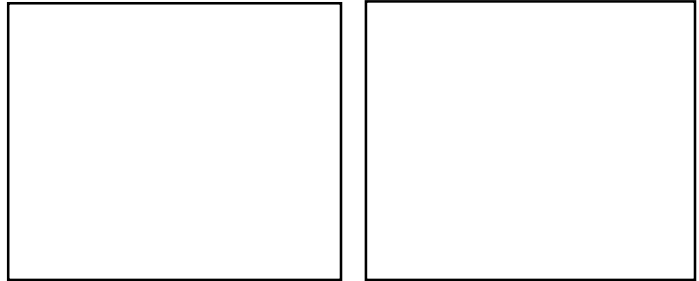
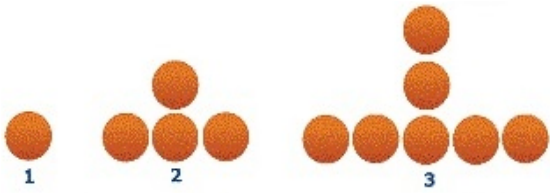
Pattern Rule: _____

4. (a) Solve the following equation:

$$f + 9 = 30$$

(b) Explain your thinking.

5. (a) Draw the next two images in the pattern below.

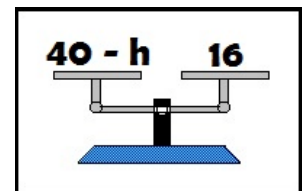


(b) Complete the chart.	Image:	Number of Circles:
	1	1
	2	4
	3	
	4	
	5	

6. Match each situation with the correct mathematical expression:

- | | | |
|-------|--|-------------|
| _____ | Your test score decreases 23% | A. $n + 11$ |
| _____ | You go up 11 floors on the elevator | B. $n - 3$ |
| _____ | You spend 14 dollars | C. $n - 23$ |
| _____ | Pete is three years younger than Laura | D. $n - 14$ |
| _____ | Joe runs two km more than Flo | E. $n + 2$ |

7. Solve the equation modeled on the two-pan balance. Show workings!



8. Mike was conducting a science experiment on a new type of grass seed. For 5 weeks, he recorded the height of the grass in the chart below. He found that the growth of the grass occurred based on a pattern.

Is there an error in Mike's chart? If so, explain. _____ _____ _____ _____	PLANT GROWTH:	
	Week(s)	Height (cm)
	1	3
	2	6
	3	8
	4	12
	5	15

9. Max said that r in the following equation equals 6. Is Max correct? Why or why not?

$$r - 8 = 14$$
