

Problems and Patterns

Unit Review (page 1 of 2)

1. Write an equation with a letter for the unknown. Solve.

Ana has **85** stickers. Ben has **3** times as many stickers as Ana. How many stickers do they have in all?

Ana	85			}	s
Ben	85	85	85		

Equation _____
_____ stickers

2. Solve. Show your work.

A club bakes **7** boxes of **36** cookies and **18** more cookies. It packs all the cookies into bags of **6**. How many bags does it fill?

_____ bags

3. Estimate to check. Is the answer reasonable?

A bakery makes **21** trays of **48** muffins. It sells **309** muffins. Lee says **699** muffins are left.

Estimate _____

Reasonable? Yes No

4. Start at **18**. The rule is add **25**. Write the next four numbers. Then circle what is true.

18, _____, _____, _____, _____

All of them are odd.

All of them are even.

Odd and even take turns.

Problems and Patterns

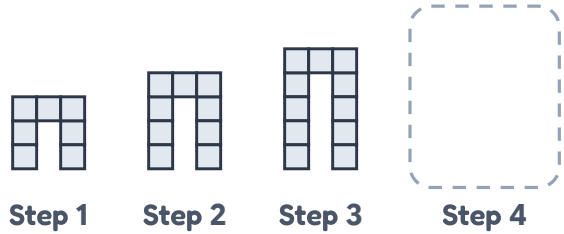
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5. Fill in the missing numbers. Write the rule.

500, _____, 470, _____, 440, 425

Rule: _____

6. Each step adds 2 squares. Draw step 4. How many squares are in step 4 and in step 10?



Step 4: _____ Step 10: _____

7. Write = or $\neq$ in each circle.

8×30 ○ $200 + 40$

$90 \div 3$ ○ $45 - 5$

$150 - 60$ ○ 9×10

$48 + 12$ ○ $240 \div 6$

8. Find the value of each letter.

$a - 36 = 89$ $a =$ _____

$9 \times b = 630$ $b =$ _____

$450 \div r = 5$ $r =$ _____

$144 = y + 58$ $y =$ _____

9. Find the rule. Fill in the table.

In	15	30	52	78	
Out	60	75			109

Rule: _____

10. Write an expression for the value at position n. Then find the value at position 20.

Position	1	2	3	4	n
Value	16	17	18	19	?

Value at n: _____

Position 20: _____

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1. Write an equation with a letter for the unknown. Solve.

Ana has **85** stickers. Ben has **3** times as many stickers as Ana. How many stickers do they have in all?

Ana	85			
Ben	85	85	85	

Equation $85 + 3 \times 85 = s$

One way 340 stickers

Lesson 6.1 · Two-step stories with a letter

2. Solve. Show your work.

A club bakes **7** boxes of **36** cookies and **18** more cookies. It packs all the cookies into bags of **6**. How many bags does it fill?

$$7 \times 36 = 252$$

$$252 + 18 = 270$$

$$270 \div 6 = 45$$

One way

45 bags

Lesson 6.2 · Multi-step stories; estimate to check

3. Estimate to check. Is the answer reasonable?

A bakery makes **21** trays of **48** muffins. It sells **309** muffins. Lee says **699** muffins are left.

Estimate $20 \times 50 - 300 = 700$

One way

Reasonable? ☒ Yes ☐ No

Lesson 6.2 · Multi-step stories; estimate to check

4. Start at **18**. The rule is add **25**. Write the next four numbers. Then circle what is true.

18, 43, 68, 93, 118

All of them are odd.

All of them are even.

☒ Odd and even take turns.

Lesson 6.5 · Number patterns from a rule

Problems and Patterns

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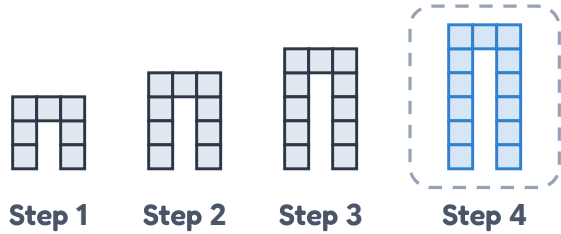
5. Fill in the missing numbers. Write the rule.

500, 485, 470, 455, 440, 425

Rule: Subtract 15

Lesson 6.5 · Number patterns from a rule

6. Each step adds 2 squares. Draw step 4. How many squares are in step 4 and in step 10?



Step 4: 13 Step 10: 25

Lesson 6.6 · Shape patterns from a rule

7. Write = or $\neq$ in each circle.

$$8 \times 30 \quad \text{=} \quad 200 + 40$$

$$90 \div 3 \quad \text{\textnot=} \quad 45 - 5$$

$$150 - 60 \quad \text{=} \quad 9 \times 10$$

$$48 + 12 \quad \text{\textnot=} \quad 240 \div 6$$

Lesson 6.3 · True or false with = and $\neq$

8. Find the value of each letter.

$$a - 36 = 89 \quad a = \underline{125}$$

$$9 \times b = 630 \quad b = \underline{70}$$

$$450 \div r = 5 \quad r = \underline{90}$$

$$144 = y + 58 \quad y = \underline{86}$$

Lesson 6.4 · A letter in any place

9. Find the rule. Fill in the table.

In	15	30	52	78	<u>64</u>
Out	60	75	<u>97</u>	<u>123</u>	109

Rule: Add 45

Lesson 6.7 · Input-output tables

10. Write an expression for the value at position n. Then find the value at position 20.

Position	1	2	3	4	n
Value	16	17	18	19	?

Value at n: $n + 15$
One way

Position 20: 35

Lesson 6.8 · Rules by position