MATH

Number patterns

Name _____ Date _____

I can find the rule in a number pattern and use it.

1 How it works

A number pattern follows a rule. In 4, 7, 10, 13 each number is 3 more than the one before, so the rule is add 3 and the next number is 16. Find the difference between neighbors to find the rule.

4	7	10	13	?
+3	+3	+3	+3	

Rule: add 3. Next: 16

2 Find the rule. Write the next two numbers.

How much does it change?

1.	2	12	22	32			Rule: _____
2.	28	34	40	46			Rule: _____
3.	26	36	46	56			Rule: _____
4.	27	29	31	33			Rule: _____
5.	279	254	229	204			Rule: _____
6.	25	35	45	55			Rule: _____

How did I do? ☆ ☆ ☆

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Missing numbers

Name _____ Date _____

I can use a rule to find missing numbers.

1 Fill in the missing numbers

Find the rule first, then fill the gaps.

1.	1		21	31		51
2.	6	9			18	21
3.	23	48	73			148
4.	159			84	59	34
5.	35		27	23		15
6.	37	34		28		22

2 Odd or even? Circle it.

10, 15, 20, 25, 30, …	all odd	all even	odd and even
4, 6, 8, 10, 12, …	all odd	all even	odd and even
5, 8, 11, 14, 17, …	all odd	all even	odd and even
3, 5, 7, 9, 11, …	all odd	all even	odd and even

How did I do? ☆ ☆ ☆

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Think deeper

Name _____ Date _____

I can explain and predict a pattern.

1 True or false? Circle it.

1. 1, 11, 21, 31, … The rule is add 10. true false
2. 6, 9, 12, 15, … The rule is add 4. true false
3. 23, 48, 73, 98, … The rule is add 25. true false
4. 159, 134, 109, 84, … The rule is subtract 26. true false
5. 35, 31, 27, 23, … The rule is subtract 4. true false

2 Make your own pattern

Choose a start number and a rule.

Start: ☐ Rule: ☐ ☐ ☐ ☐ ☐ ☐

Start: ☐ Rule: ☐ ☐ ☐ ☐ ☐ ☐

3 Think about it

1. What is the rule in 40, 35, 30, 25?
2. Is 50 in the pattern 3, 6, 9, 12, …?
3. Start at 7 and add 10. Write 4 numbers.

How did I do? ☆ ☆ ☆

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Word problems

Name _____ Date _____

I can use a pattern to solve a problem.

1 Read, find the pattern, solve

Make a table or draw if it helps.

1 Adam saves $5 each week: $5, $10, $15, ... How much has Adam saved after 6 weeks?

Answer: _____

2 A plant is 3 cm tall on day 1, 6 cm on day 2 and 9 cm on day 3. If it keeps growing like this, how tall is it on day 5?

Answer: _____

3 Count back by 10 from 100: 100, 90, 80, ... What is the 6th number?

Answer: _____

4 Noor says 2, 4, 6, 8 has the rule "add 2" and 7, 9, 11 has the rule "add 3". Is Noor right?

Answer: _____

How did I do? ☆ ☆ ☆

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FOR TEACHERS AND PARENTS

Answer key: number patterns

1 Page 1

Next: 1) 42, 52 (add 10); 2) 52, 58 (add 6); 3) 66, 76 (add 10); 4) 35, 37 (add 2); 5) 179, 154 (subtract 25); 6) 65, 75 (add 10).

2 Page 2

Missing: 1) 11, 41; 2) 12, 15; 3) 98, 123; 4) 134, 109; 5) 31, 19; 6) 31, 25.

Odd or even: 1) odd and even; 2) all even; 3) odd and even; 4) all odd.

3 Page 3

True or false: 1) true; 2) false; 3) true; 4) false; 5) true.

Own pattern: answers will vary.

Think: 1) Subtract 5; 2) No: 50 is not in the 3s; 3) 7, 17, 27, 37.

4 Page 4: word problems

1) $30
2) 15 cm
3) 50
4) No. Both patterns add 2.

5 Teaching tip 💡

Have children write the jump (+3, +3, +3) between each pair of numbers. If the jumps are not all the same, either the pattern or their subtraction needs a second look.

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