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?

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

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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