Name: _____ Date: _____

Fresh Math

Arithmetic Patterns - Medium

Find the rule. Then write the next two numbers.

1. 1, 6, 11, 16, _____, _____

2. 3, 5, 7, 9, _____, _____

3. 4, 11, 18, 25, _____, _____

4. 14, 18, 22, 26, _____, _____

5. 20, 22, 24, 26, _____, _____

6. 13, 21, 29, 37, _____, _____

7. 2, 11, 20, 29, _____, _____

8. 3, 10, 17, 24, _____, _____

9. 32, 28, 24, 20, _____, _____

10. 27, 25, 23, 21, _____, _____

Name: _____ Date: _____

Fresh Math

Arithmetic Patterns - Medium

Is the statement true or false? Explain with a reason or an example.

11. A number added to itself is always even.

12. An even number times any number is even.

13. 9 times any number is odd.

14. Every multiple of 5 ends in 0 or 5.

15. Adding 10 to a number does not change its ones digit.

16. 4 times any number is even.

17. All the products in the 2s row of the multiplication table are even.

18. Every multiple of 6 is also a multiple of 3.

19. Changing the order of the factors does not change the product.

20. The sum of three odd numbers is even.

Arithmetic Patterns - Medium - Answer Key

1. 1, 6, 11, 16, _____, _____
   add 5; 21, 26

2. 3, 5, 7, 9, _____, _____
   add 2; 11, 13

3. 4, 11, 18, 25, _____, _____
   add 7; 32, 39

4. 14, 18, 22, 26, _____, _____
   add 4; 30, 34

5. 20, 22, 24, 26, _____, _____
   add 2; 28, 30

6. 13, 21, 29, 37, _____, _____
   add 8; 45, 53

7. 2, 11, 20, 29, _____, _____
   add 9; 38, 47

8. 3, 10, 17, 24, _____, _____
   add 7; 31, 38

9. 32, 28, 24, 20, _____, _____
   subtract 4; 16, 12

10. 27, 25, 23, 21, _____, _____
    subtract 2; 19, 17

Arithmetic Patterns – Medium – Answer Key

11. A number added to itself is always even.

    True: n + n = 2 × n, which is even

12. An even number times any number is even.

    True: an even number is 2 × something, so the product is 2 × something

13. 9 times any number is odd.

    False: 9 × 2 = 18, which is even

14. Every multiple of 5 ends in 0 or 5.

    True: counting by 5s goes 5, 10, 15, 20, ..., so the ones digit is always 5 or 0

15. Adding 10 to a number does not change its ones digit.

    True: adding 10 adds 1 ten and 0 ones

16. 4 times any number is even.

    True: 4 × n = 2 × (2 × n), and any number times 2 is even

17. All the products in the 2s row of the multiplication table are even.

    True: 2 × n is n + n, which can be split into two equal groups

18. Every multiple of 6 is also a multiple of 3.

    True: 6 = 2 × 3, so 6 × n = 3 × (2 × n)

19. Changing the order of the factors does not change the product.

    True: commutative property: 3 × 8 = 8 × 3 = 24

20. The sum of three odd numbers is even.

    False: 1 + 3 + 5 = 9, which is odd