## CLOTHESPIN MATCHING ACTIVITY

# PARENT **GRAPHS OF** TRIG FUNCTIONS

Activity Inspired by Worksheet Created by Robyn Wolfe, Carlisle, PA (https://www.carlisleschools.org/common/pages/UserFile.aspx?fileId=10321706)

# Cards to Attach to Clothespins

| sin  | COS         | tan  | sin | COS         | tan |        |
|------|-------------|------|-----|-------------|-----|--------|
| CSC  | sec         | cot  | CSC | sec         | cot | t<br>D |
| sin  | <b>CO</b> 5 | tan  | sin | <b>C</b> 05 | tan |        |
| 3111 | CUS         | IMII |     | CUS         |     | COS    |
| CSC  | sec         | cot  | CSC | sec         | cot | Ŭ      |
|      |             |      |     |             | _   | sin    |
| sin  | COS         | tan  | sin | COS         | tan |        |
| CSC  | sec         | cot  | CSC | sec         | cot |        |

| tan | cot |
|-----|-----|
| COS | sec |
| sin | CSC |

#### PARENT GRAPHS OF TRIG FUNCTIONS CLOTHESPIN MATCHING ACTIVITY

Group Member Names:

| COMPLETED CHALLENGES |    |    |    |  |  |  |  |
|----------------------|----|----|----|--|--|--|--|
| 1                    | 2  | 3  | 4  |  |  |  |  |
| 5                    | 6  | 7  | 8  |  |  |  |  |
| 9                    | 10 | 11 | 12 |  |  |  |  |
| 13                   | 14 | 15 | 16 |  |  |  |  |
| 17                   | 18 | 19 | 20 |  |  |  |  |

2 Which trig parent functions have the given characteristic?

#### No y-intercept

#### y-intercept of 1

3 Which trig parent functions have the given characteristic?

#### Absolute max of 1

4 Which trig parent functions have the given characteristic?

#### Absolute min of -1

6 Which trig parent functions have the given characteristic?

#### Relative max of -1

#### Relative min of 1





7 Which trig parent functions have the given characteristic?

**Domain**  $(-\infty,\infty)$ 

8 Which trig parent functions have the given characteristic?

Range  $(-\infty,\infty)$ 

### Range [-1, 1]





#### No zeros

12 Which trig parent functions have the given characteristic?

#### Continuous Wave Shape

13 Which trig parent functions have the given characteristic?

14 Which trig parent functions have the given characteristic?

### **Range** (-∞,-1]∪[1,∞)





#### Asymptotes at ±π(k)

16 Which trig parent functions have the given characteristic?



#### Alternating U-Shapes



**19** Which trig parent functions have the given characteristic?

#### No absolute max or min

20 Which trig parent functions have the given characteristic?

