

Intro to Functions

Warm Up

Evaluate the following expression for $x = -2$

a) $-x^2 + 3x - 1$

$$= -(-2)^2 + 3(-2) - 1$$

$$= -(4) + (-6) - 1$$

$$= -11$$

b) $2(x - 3)^3 + 1$

$$= 2(-2 - 3)^3 + 1$$

$$= 2(-5)^3 + 1$$

$$= 2(-125) + 1$$

$$= -250 + 1$$

$$= -249$$

c) $|x - 4| + 2$

$$= |-2 - 4| + 2$$

$$= |-6| + 2$$

$$= 6 + 2$$

$$= 8$$

Groups

Group 1: Line + Parabola

Group 2: Cubic

Group 3: Reciprocal

Group 4: Absolute Value

Group 5: Circle

Group 6: Root



Instructions - Part 1 (20 mins)

1. Complete the table of values and graph for the equations you were given.
2. Transcribe the information on to the chart paper provided.
3. Ensure as a group that **everyone** can explain the work you have done.



Instructions Part 2 (15 mins)



1. Split your group into 2 groups (one group A, one group B)
2. Group A stays
3. Groups B walks
4. Bring your functions booklet with you as you will fill in information.
5. You will have **3 minutes** at each group for them to explain the work and graph what they have.



Instructions Part 3 (15 mins)



1. Split your group into 2 groups (one group A, one group B)
2. Group B stays
3. Groups A walks
4. Bring your functions booklet with you as you will fill in information.
5. You will have **3 minutes** at each group for them to explain the work and graph what they have.



Homework



When you have completed your functions booklet you have a handout to complete.

What isn't finished in class must be done for homework.

