

PAP Algebra 2
Analyze Parent Functions

Name: Key

Use the knowledge you know about all the parent functions to answer the following.

1. Which parent functions are always increasing?

linear; Sq. Root; Expo Growth; log; Cubic; cube root

2. Which parent functions are always decreasing?

Rational

3. Which parent functions have both increasing and decreasing parts?

Quadratic • absolute value

4. Which parent functions have only vertical asymptotes?

log; ~~Rational~~

5. Which parent functions have only horizontal asymptotes?

Expo Growth

6. Which parent functions have both vertical and horizontal asymptotes?

Rational

7. Which parent functions have no asymptotes?

linear; Abs. Value; Quad; Sq Root; Cubic; Cube Root

8. Which parent functions have a maximum point?

NONE

9. Which parent functions have a minimum point?

Abs Value; quad; Sq. Root

10. Which parent functions have a domain of all real numbers?

linear, Quad; Abs value; Cubic; Cube Root expo Growth

11. Which parent functions have a range of all real numbers?

linear Cubic; Cube Root; log

12. Which parent functions have an even symmetry?

Abs value; Quad.

13. Which parent functions have an odd symmetry?

Linear; Cubic; Cube root; Rational

14. Which parent functions have no symmetry?

log; expo growth; Sq. Root

15. Which parent functions pass through the origin?

Linear; Cubic; cube root

16. Which parent functions have no x -intercept?

Expo growth; log; Rational

17. Which parent functions have no y -intercept?

log; Rational

18. Which parent functions are positive except at $x = 0$?

Abs value; quad; Sq. Root

19. Which parent functions are negative for the interval of $(-\infty, 0)$ and

positive for $(0, \infty)$? Linear; Cubic; cube root