Fill in the blanks.

1. $f$ has a relative maximum where the graph of $f^{\prime}$
2. $f$ is decreasing where the graph of $f^{\prime}$
3. $f$ has relative extrema where the graph of $f^{\prime}$
4. $f$ has inflection points where the graph of $f^{\prime}$
5. $f$ is concave up where the graph of $f^{\prime}$
6. $f$ has a critical number where the graph of $f^{\prime}$
7. $f$ is increasing where the graph of $f^{\prime}$
8. $f$ is concave down where the graph of $f^{\prime}$
9. $f$ has a relative minimum where the graph of $f^{\prime}$
10. If $f^{\prime}$ is increasing, the graph of $f$ is
11. If $f^{\prime}$ is positive, the graph of $f$ is
12. If $f^{\prime}$ is below the x -axis, the graph of $f$ is
13. If $f$ is concave down, the graph of $f "$ will be
14. If $f^{\prime}$ is decreasing, the graph of $f$ will be
15. If $f$ has an inflection point at $x=a$, the graph of $f^{\prime}$
16. If $f$ is concave up on $(a, b)$, the graph of $f "$ will be
17. If $f$ is increasing on $(a, b)$, the graph of $f$ 'will be
18. If $f$ has a critical number at $x=a$, the graph of $f$ 'will
19. Where the graph of $f^{\prime}$ has relative extrema, $f$ will have
20. If the graph of $f^{\prime}$ is decreasing, the graph of $f$ " will be
21. $\qquad$
22. $\qquad$
23. $\qquad$
24. $\qquad$
25. $\qquad$
26. $\qquad$
27. $\qquad$
28. $\qquad$
29. $\qquad$
30. 
31. 
32. $\qquad$
33. $\qquad$
34. $\qquad$
35. $\qquad$
36. $\qquad$
37. $\qquad$
38. $\qquad$
39. $\qquad$
40. $\qquad$
