

Funcities

5. $f(x) = 20 \rightarrow x^4 - 16 = 20$
 $x = (36)^{1/4} = \sqrt{6}$ of $x = -(36)^{1/4} = -\sqrt{6}$
Dus $-\sqrt{6} < x < -2$ of
 $2 < x < \sqrt{6}$

6. $3^4 - 16 + b = 0 \rightarrow b = 16 - 81 = -65$
De grafiek is dus 65 omlaag verschoven.

7. $f'(x) = 4x^3$, $f'(2) = 32$
dus $m = 32x + b$ door $(-2, 0)$
 $32 \cdot -2 + b = 0 \rightarrow b = 64$
 $m = 32x + 64$

8. $g'(x) = 0 \rightarrow 5x^4 - 16 = 0$
 $\rightarrow x = 1,337$ of $x = -1,337$
 $g(-1,337) = 17,1198$
 $g(1,337) = -17,1198$

Dus geldt: $PQ = \sqrt{(2 \cdot 17,1198)^2 + (2 \cdot 1,337)^2} = 34,34$

De lengte is dus 34,3