

1. Graph $f1(x) = 2x + 1$. Use ctrl+T to show the table. What is y when $x = 4$?

Graphs page > type $f1(x) = 2x + 1$ > enter
ctrl+T, scroll to $x = 4$

Answer: 9

2. Graph $f1(x) = x^2 - 5$. From the table, what is y when $x = 3$?

ctrl+T, scroll to $x = 3$
 $9 - 5$

Answer: 4

3. Graph $f1(x) = x + 2$ and $f2(x) = 2x - 1$. Find the intersection.

tab for f2
menu > Analyze Graph > Intersection
Click left of the crossing, then right

Answer: (3, 5)

4. Graph $f1(x) = x^2 - 4$. Find both zeros.

menu > Analyze Graph > Zero
Bound each crossing separately - run it twice

Answer: $x = -2$ and 2

5. Graph $f1(x) = -x^2 + 6x$. Find the maximum.

Opens down > menu > Analyze Graph > Maximum
Bound left and right of the hill

Answer: (3, 9)

6. Graph $f1(x) = 3x - 7$. From the table: what x gives $y = 8$?

ctrl+T
Scroll until $f1(x)$ reads 8, read the x beside it

Answer: $x = 5$

7. Graph $f1(x) = x^2 + 2x - 8$. Find the minimum.

Opens up > menu > Analyze Graph > Minimum
Zoom-Out first if the bottom is off screen

Answer: (-1, -9)

8. Graph $f1(x) = 0.5x + 3$ and $f2(x) = -x + 6$. Intersection?

Both functions entered
menu > Analyze Graph > Intersection

Answer: (2, 4)

9. Graph $f1(x) = x^2 - 2x - 3$ and $f2(x) = x + 1$. Find BOTH intersections. ★ challenge

Run Intersection twice - once per crossing
Check by algebra: $x^2 - 3x - 4 = 0$

Answer: (-1, 0) and (4, 5)

10. $f(x) = x^2 - 6x + 5$. Find the zeros AND the minimum, then explain how they relate. ★ challenge

Zero twice: $x = 1$ and 5

Minimum: $(3, -4)$

Average the zeros: $(1+5)/2 = 3$

Answer: zeros 1 & 5; min (3,-4); vertex x is midway