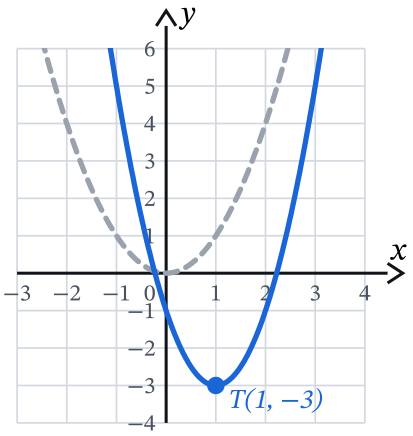
Ime i prezime _____ Datum _____

# Tjemeni oblik

Primjer




$f(x) = 2(x-1)^2 - 3$

Parabolu $y = x^2$ suzimo ($a = 2$), pomaknemo za 1 **udesno** i za 3 **dolje**.

Tjeme $T(1, -3)$, os simetrije $x = 1$, otvor prema gore.

**Zapamti**

**Tjemeni oblik:** $f(x) = a(x-p)^2 + q$. Tjeme je $T(p, q)$, os simetrije je pravac $x = p$, a $a$ određuje otvor parabole.

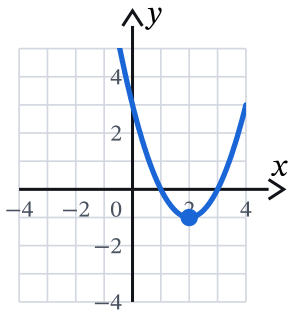
**1** SAMOSTALNO Dopuni tablicu.

| Funkcija | $a$ | Tjeme | Os simetrije | Otvor |
|---|---|---|---|---|
| $(x-4)^2 + 1$ | ☐ | $T($☐,☐$)$ | $x =$ ☐ | **gore / dolje** |
| $-(x+2)^2 + 5$ | ☐ | $T($☐,☐$)$ | $x =$ ☐ | **gore / dolje** |
| $3(x-1)^2 - 2$ | ☐ | $T($☐,☐$)$ | $x =$ ☐ | **gore / dolje** |
| $-\frac{1}{2}(x+3)^2$ | ☐ | $T($☐,☐$)$ | $x =$ ☐ | **gore / dolje** |
| $2x^2 - 7$ | ☐ | $T($☐,☐$)$ | $x =$ ☐ | **gore / dolje** |
| $-(x-6)^2$ | ☐ | $T($☐,☐$)$ | $x =$ ☐ | **gore / dolje** |

Imena u paru _____ Datum _____

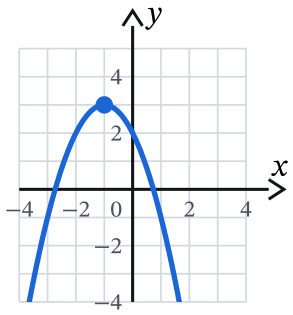
**2** U PARU **Formula iz grafa.** Jedan učenik očita tjeme i još jednu točku, drugi napiše formulu u tjemenom obliku. Zamijenite uloge.

**A**



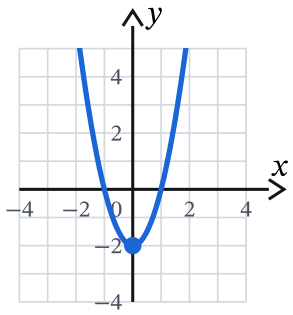

$f(x) =$ ☐

**B**




$f(x) =$ ☐

**C**




$f(x) =$ ☐

**3** SAMOSTALNO Napiši formulu u tjemenom obliku ako je zadano tjeme i jedna točka parabole.

$T(1, 2)$, točka $(2, 5)$: $f(x) =$ ☐

$T(-2, 0)$, točka $(0, -8)$: $f(x) =$ ☐

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Način **Predvidi pa provjeri**: odaberi smjer *Graf → formula* i zadatke $a(x - p)^2 + q$.

★ SAMOSTALNO **Izlazna kartica.** $f(x) = -(x - 3)^2 + 4$: $T($☐, ☐$)$, otvor

**gore** / **dolje**