



Forming equation of parabolas

Mana Maths

Te reo Māori terms



whārite pūrua

quadratic equation

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kauwhata

graph

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taunga

coordinate

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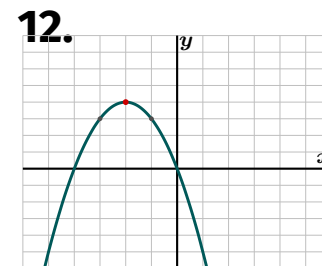
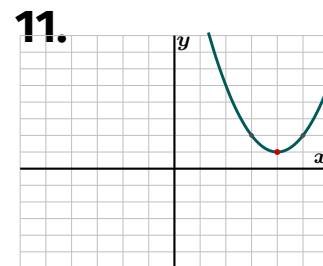
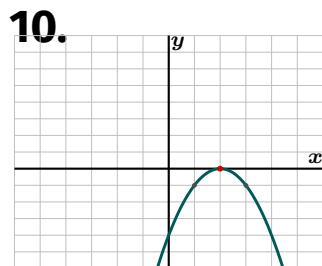
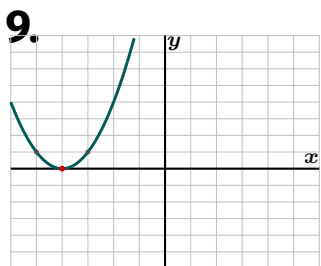
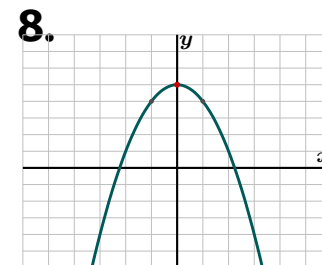
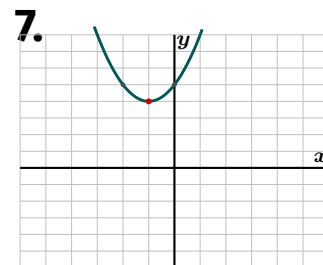
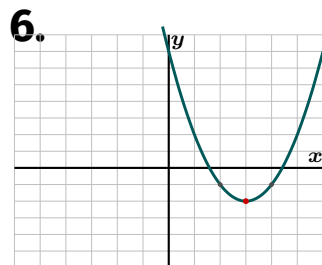
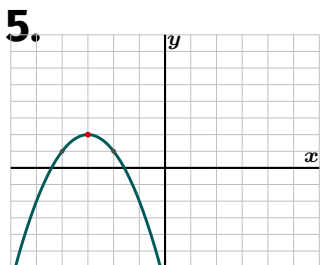
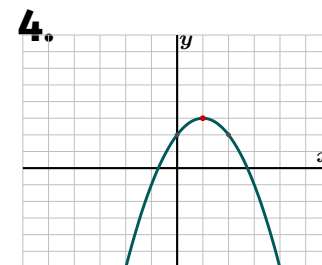
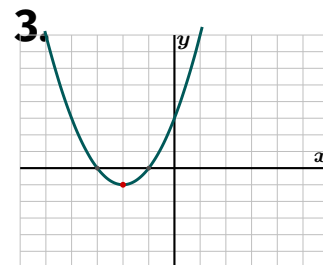
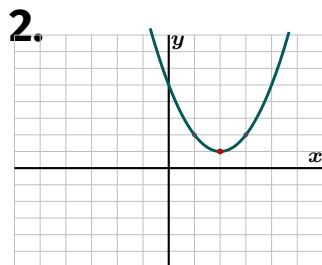
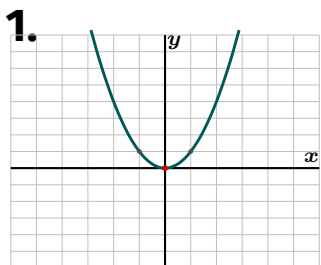
taurangi

variable

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Forming equation of parabolas — Foundation

Each graph shows a parabola. Use the turning point and nearby plotted points to write its equation in the form $y = a(x - h)^2 + k$.



1. Write the equation in the form $y = a(x - h)^2 + k$.

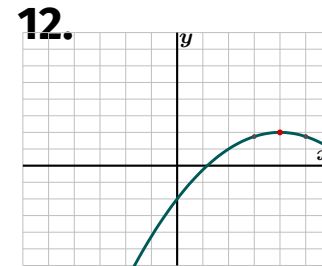
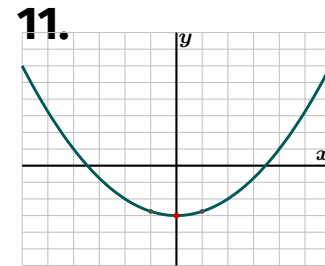
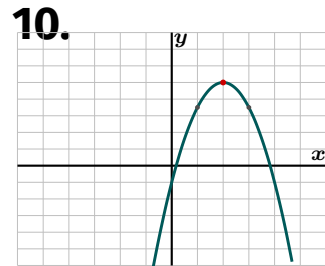
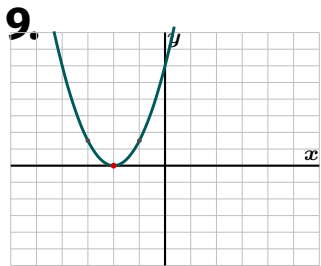
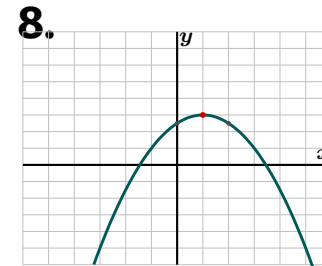
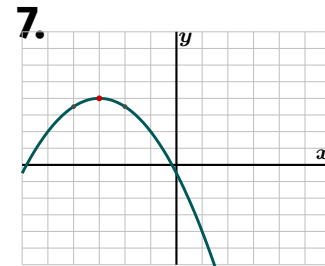
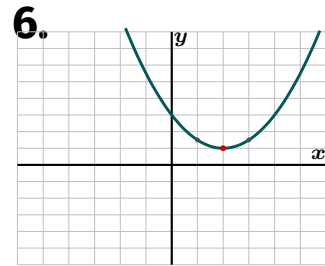
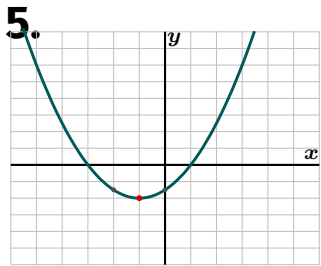
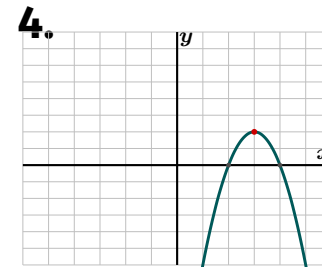
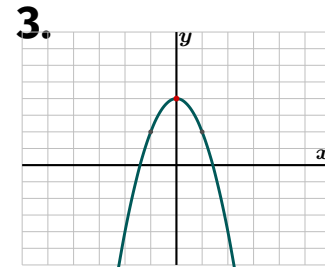
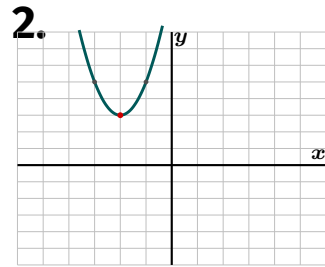
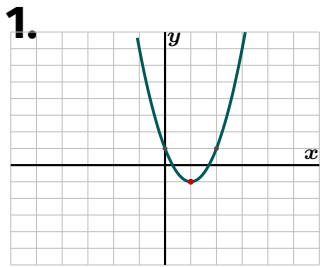
2. Write the equation in the form $y = a(x - h)^2 + k$.

3. Write the equation in the form $y = a(x - h)^2 + k$.

- 4.** Write the equation in the form $y = a(x - h)^2 + k$.
- 5.** Write the equation in the form $y = a(x - h)^2 + k$.
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- 9.** Write the equation in the form $y = a(x - h)^2 + k$.
- 10.** Write the equation in the form $y = a(x - h)^2 + k$.
- 11.** Write the equation in the form $y = a(x - h)^2 + k$.
- 12.** Write the equation in the form $y = a(x - h)^2 + k$.

Forming equation of parabolas – Proficient

Use each graph to work out the scale factor and translation, then write the equation in the form $y = a(x - h)^2 + k$.



1. Equation.

2. Equation.

3. Equation.

4. Equation.

5. Equation.

6. Equation.

7. Equation.

8. Equation.

9. Equation.

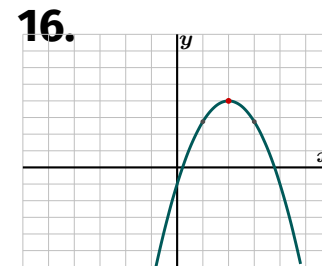
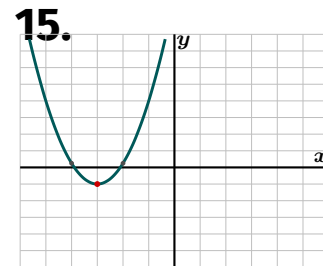
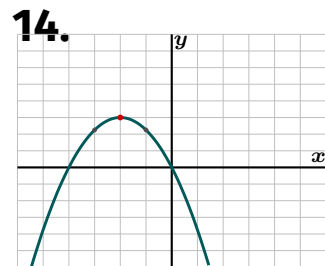
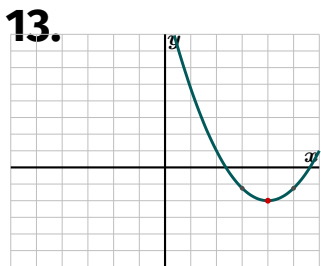
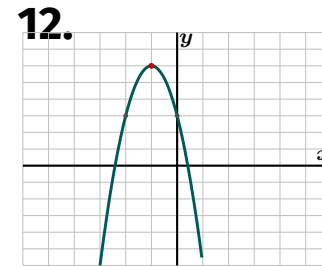
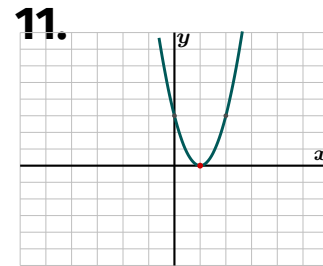
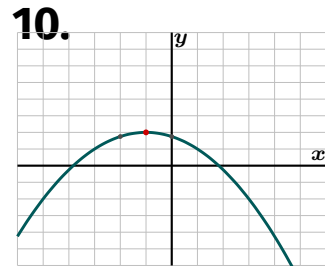
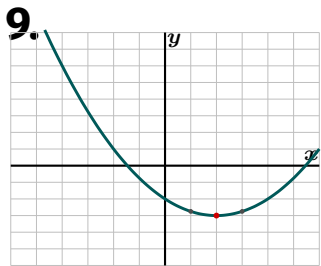
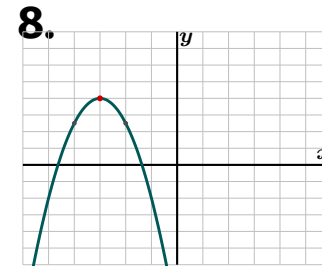
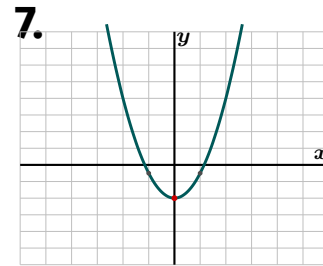
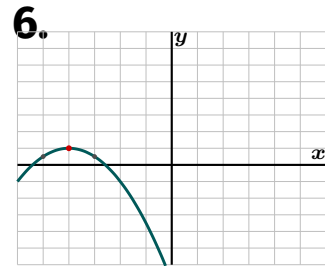
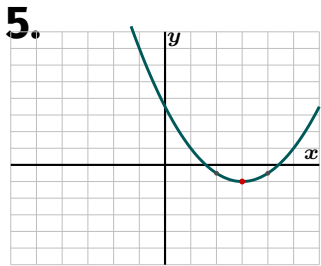
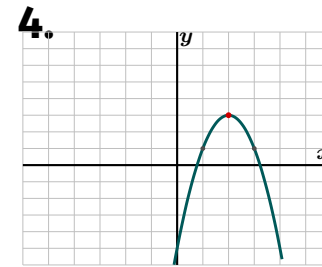
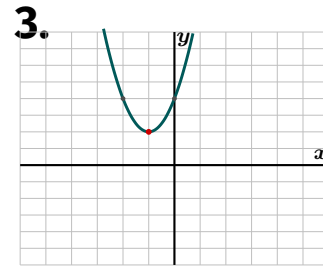
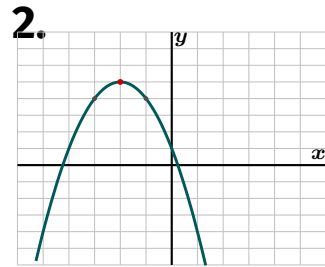
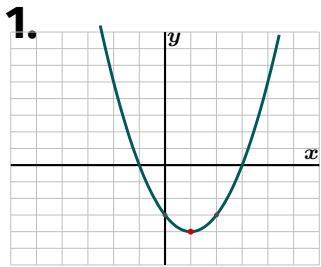
10. Equation.

11. Equation.

12. Equation.

Forming equation of parabolas — Excellence

Form each equation from the graph. Keep answers exact and use the form $y = a(x - h)^2 + k$ before any expansion.



1. Equation and expand.
2. Equation and expand.
3. Equation and expand.
4. Equation and expand.
5. Equation and expand.
6. Equation and expand.
7. Equation and axis.
8. Equation and axis.
9. Equation and axis.
10. Equation and axis.
11. Write the equation in vertex form. Then give y when $x = 3$.
12. Write the equation in vertex form. Then give y when $x = 1$.
13. Write the equation in vertex form. Then give y when $x = 2$.
14. Write the equation in vertex form. Then give y when $x = 0$.
15. Equation and expand.

16. Equation and expand.