Task card 1 Parametric Equations

Eliminate the parameter: $x = t + 5$, $y = t^2 - 2$. Write the answer in the form $y = a(x - h)^2 + k$.

Task card 2 Parametric Equations

Eliminate the parameter: $x = 5 \cos t$, $y = 5 \sin t$. Write the answer in the form $x^2 + y^2 = c$.

Task card 3 Parametric Equations

A football is punted. After t seconds its position in meters is $x = 30t$, $y = 50t - 5t^2$. What is its maximum height, in meters?

Task card 4 Parametric Equations

Eliminate the parameter: $x = 2t + 5$, $y = -12t + 6$. Write the answer in the form $y = mx + b$.

Task card 5 Parametric Equations

A rocket is launched. After t seconds its position in meters is $x = 17t$, $y = 50t - 5t^2$. How many meters from its starting point does it land?

Task card 6 Parametric Equations

$x = 2t + 6$, $y = -t^2 - 3t + 3$. For which value of t is the curve at the point (2, 5)?

Task card 7 Parametric Equations

A football is punted. After t seconds its position in meters is $x = 12t$, $y = 10t - 5t^2$. Find its position (x, y) when $t = 1$.

Task card 8 Parametric Equations

Eliminate the parameter: $x = t + 3$, $y = 2t^2 + 6$. Write the answer in the form $y = a(x - h)^2 + k$.

Task card 9 Parametric Equations

Eliminate the parameter: $x = t + 1$, $y = t^2 - 9$. Write the answer in the form $y = a(x - h)^2 + k$.

Task card 10 Parametric Equations

Eliminate the parameter: $x = 11 \cos t$, $y = 11 \sin t$. Write the answer in the form $x^2 + y^2 = c$.

Task card 11 Parametric Equations

A ball is kicked. After t seconds its position in meters is $x = 28t$, $y = 10t - 5t^2$. What is its maximum height, in meters?

Task card 12 Parametric Equations

Eliminate the parameter: $x = -t + 2$, $y = 5t$. Write the answer in the form $y = mx + b$.

Task card 13 Parametric Equations

A stone is thrown. After t seconds its position in meters is $x = 17t$, $y = 40t - 5t^2$. How many meters from its starting point does it land?

Task card 14 Parametric Equations

$x = -4t + 2$, $y = t + 9$. For which value of t is the curve at the point (2, 9)?

Task card 15 Parametric Equations

A ball is kicked. After t seconds its position in meters is $x = 11t$, $y = 50t - 5t^2$. Find its position (x, y) when $t = 7$.

Task card 16 Parametric Equations

Eliminate the parameter: $x = t - 3$, $y = 2t^2 - 7$. Write the answer in the form $y = a(x - h)^2 + k$.

Task card 17 Parametric Equations

Eliminate the parameter: $x = t + 7$, $y = 2t^2 - 2$. Write the answer in the form $y = a(x - h)^2 + k$.

Task card 18 Parametric Equations

Eliminate the parameter: $x = 6 \cos t$, $y = 6 \sin t$. Write the answer in the form $x^2 + y^2 = c$.

Task card 19 Parametric Equations

A ball is kicked. After t seconds its position in meters is $x = 21t$, $y = 20t - 5t^2$. What is its maximum height, in meters?

Task card 20 Parametric Equations

Eliminate the parameter: $x = -t + 3$, $y = -4t + 8$. Write the answer in the form $y = mx + b$.

Task card 21 Parametric Equations

A football is punted. After t seconds its position in meters is $x = 11t$, $y = 20t - 5t^2$. How many meters from its starting point does it land?

Task card 22 Parametric Equations

$x = -t + 4$, $y = t^2 + 8t + 7$. For which value of t is the curve at the point $(7, -8)$?

Task card 23 Parametric Equations

A rocket is launched. After t seconds its position in meters is $x = 20t$, $y = 50t - 5t^2$. Find its position (x, y) when $t = 3$.

Task card 24 Parametric Equations

Eliminate the parameter: $x = t + 3$, $y = -2t^2 + 8$. Write the answer in the form $y = a(x - h)^2 + k$.

Parametric Equations Task Cards

Recording sheet · Grade 12 · Write points as (x, y) and equations in the form asked for, typing ^ for powers, like y = (x - 2)^2 + 1.

Scan to check your answers

Name: _____ Date: _____

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Parametric Equations Task Cards: Answer Key

Grade 12 · Hard

The answers online

1. $y = (x - 5)^2 - 2$	**2.** $x^2 + y^2 = 25$	**3.** 125
4. $y = -6x + 36$	**5.** 170	**6.** $t = -2$
7. (12, 5)	**8.** $y = 2(x - 3)^2 + 6$	**9.** $y = (x - 1)^2 - 9$
10. $x^2 + y^2 = 121$	**11.** 5	**12.** $y = -5x + 10$
13. 136	**14.** $t = 0$	**15.** (77, 105)
16. $y = 2(x + 3)^2 - 7$	**17.** $y = 2(x - 7)^2 - 2$	**18.** $x^2 + y^2 = 36$
19. 20	**20.** $y = 4x - 4$	**21.** 44
22. $t = -3$	**23.** (60, 105)	**24.** $y = -2(x - 3)^2 + 8$