Task card 1 Conic Sections: Circles, Ellipses...

Complete the square to find the radius of the circle $x^2 - 6x + y^2 - 8y - 11 = 0$.

Task card 2 Conic Sections: Circles, Ellipses...

Find the focus with the larger y-coordinate of the ellipse $(x - 4)^2 / 25 + y^2 / 169 = 1$.

Task card 3 Conic Sections: Circles, Ellipses...

Find c, the distance from the center to each focus of the hyperbola $(y + 5)^2 / 36 - (x + 4)^2 / 64 = 1$.

Task card 4 Conic Sections: Circles, Ellipses...

Find c, the distance from the center to each focus of the ellipse $(x - 4)^2 / 289 + (y + 1)^2 / 225 = 1$.

Task card 5 Conic Sections: Circles, Ellipses...

Find c, the distance from the center to each focus of the hyperbola $(x - 1)^2 / 36 - (y + 3)^2 / 64 = 1$.

Task card 6 Conic Sections: Circles, Ellipses...

Find c, the distance from the center to each focus of the hyperbola $(x + 3)^2 / 64 - (y + 5)^2 / 36 = 1$.

Task card 7 Conic Sections: Circles, Ellipses...

Find the vertex with the larger y-coordinate of the hyperbola $(y + 1)^2 / 16 - (x + 3)^2 / 9 = 1$.

Task card 8 Conic Sections: Circles, Ellipses...

Find the focus with the larger y-coordinate of the ellipse $(x + 6)^2 / 225 + (y - 3)^2 / 289 = 1$.

Task card 9 Conic Sections: Circles, Ellipses...

Complete the square to find the center of the circle $x^2 - 12x + y^2 + 8y + 51 = 0$.

Task card 10 Conic Sections: Circles, Ellipses...

Find c, the distance from the center to each focus of the ellipse $(x + 1)^2 / 64 + (y + 4)^2 / 100 = 1$.

Task card 11 Conic Sections: Circles, Ellipses...

Find the focus with the larger x-coordinate of the hyperbola $(x + 4)^2 / 36 - (y - 2)^2 / 64 = 1$.

Task card 12 Conic Sections: Circles, Ellipses...

Find the focus with the larger x-coordinate of the ellipse $(x - 5)^2 / 169 + (y + 2)^2 / 25 = 1$.

Task card 13 Conic Sections: Circles, Ellipses...

Find the positive slope of the asymptotes of the hyperbola $(x + 3)^2 / 144 - (y - 3)^2 / 25 = 1$.

Task card 14 Conic Sections: Circles, Ellipses...

Find the center of the hyperbola $(y + 1)^2 / 25 - (x - 1)^2 / 144 = 1$.

Task card 15 Conic Sections: Circles, Ellipses...

Find the focus with the larger y-coordinate of the ellipse $(x + 6)^2 / 144 + (y - 3)^2 / 169 = 1$.

Task card 16 Conic Sections: Circles, Ellipses...

Find the center of the hyperbola $(y + 5)^2 / 144 - (x - 2)^2 / 25 = 1$.

Task card 17 Conic Sections: Circles, Ellipses...

Complete the square to find the center of the circle $x^2 + 14x + y^2 - 2y - 50 = 0$.

Task card 18 Conic Sections: Circles, Ellipses...

Find the center of the ellipse $(x - 1)^2 / 9 + (y + 1)^2 / 25 = 1$.

Task card 19 Conic Sections: Circles, Ellipses...

Find c, the distance from the center to each focus of the hyperbola $(y - 2)^2 / 25 - (x - 3)^2 / 144 = 1$.

Task card 20 Conic Sections: Circles, Ellipses...

Find c, the distance from the center to each focus of the ellipse $(x + 3)^2 / 64 + (y - 1)^2 / 100 = 1$.

Task card 21 Conic Sections: Circles, Ellipses...

Find c, the distance from the center to each focus of the hyperbola $(x + 2)^2 / 16 - (y - 1)^2 / 9 = 1$.

Task card 22 Conic Sections: Circles, Ellipses...

Find the center of the hyperbola $(x - 4)^2 / 64 - (y + 1)^2 / 36 = 1$.

Task card 23 Conic Sections: Circles, Ellipses...

Find the positive slope of the asymptotes of the hyperbola $(y + 5)^2 / 16 - (x - 5)^2 / 9 = 1$.

Task card 24 Conic Sections: Circles, Ellipses...

Find the center of the hyperbola $(x + 6)^2 / 9 - (y - 5)^2 / 16 = 1$.

Conic Sections: Circles, Ellipses & Hyperbolas Task Cards

Recording sheet · Grade 12 · Answer each question. Write points as (x, y).

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

Conic Sections: Circles, Ellipses & Hyperbolas Task Cards: Answer Key

Grade 12 · Hard

The answers online

1. 6	**2.** (4, 12)	**3.** 10
4. 8	**5.** 10	**6.** 10
7. (-3, 3)	**8.** (-6, 11)	**9.** (6, -4)
10. 6	**11.** (6, 2)	**12.** (17, -2)
13. $\frac{5}{12}$	**14.** (1, -1)	**15.** (-6, 8)
16. (2, -5)	**17.** (-7, 1)	**18.** (1, -1)
19. 13	**20.** 6	**21.** 5
22. (4, -1)	**23.** $\frac{4}{3}$	**24.** (-6, 5)