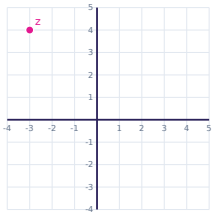
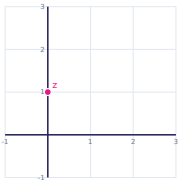
Task card 1 Complex Numbers in Polar Form & De...

Find the modulus |z| of z = -3 + 4i.



Task card 2 Complex Numbers in Polar Form & De...

Find the argument θ of z = i.

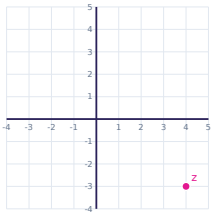


Task card 3 Complex Numbers in Polar Form & De...

Write z = 2√2(cos 135° + i sin 135°) in the form a + bi.

Task card 4 Complex Numbers in Polar Form & De...

Find the modulus |z| of z = 4 - 3i.



Task card 5 Complex Numbers in Polar Form & De...

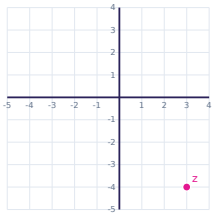
Write z = 6(cos 0° + i sin 0°) in the form a + bi.

Task card 6 Complex Numbers in Polar Form & De...

Find the modulus |z| of z = -24 + 7i.

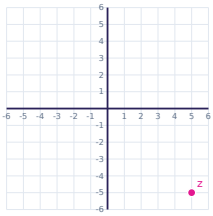
Task card 7 Complex Numbers in Polar Form & De...

Find the modulus |z| of z = 3 - 4i.



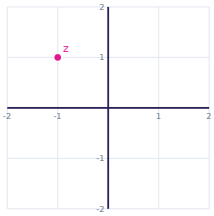
Task card 8 Complex Numbers in Polar Form & De...

Find the argument θ of z = 5 - 5i.



Task card 9 Complex Numbers in Polar Form & De...

Find the argument θ of z = -1 + i.

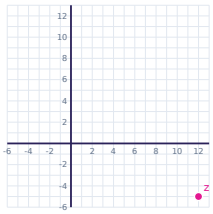


Task card 10 Complex Numbers in Polar Form & De...

Write z = 4(cos 180° + i sin 180°) in the form a + bi.

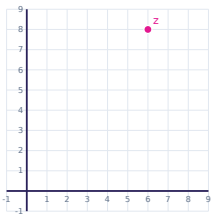
Task card 11 Complex Numbers in Polar Form & De...

Find the modulus |z| of z = 12 - 5i.



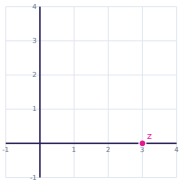
Task card 12 Complex Numbers in Polar Form & De...

Find the modulus |z| of z = 6 + 8i.



Task card 13 Complex Numbers in Polar Form & De...

Find the argument θ of z = 3.



Task card 14 Complex Numbers in Polar Form & De...

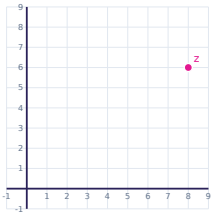
Find the modulus |z| of z = -20 - 21i.

Task card 15 Complex Numbers in Polar Form & De...

Find the modulus |z| of z = -15 + 8i.

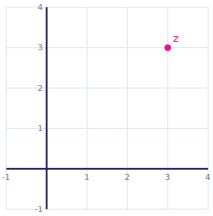
Task card 16 Complex Numbers in Polar Form & De...

Find the modulus |z| of z = 8 + 6i.



Task card 17 Complex Numbers in Polar Form & De...

Find the argument θ of z = 3 + 3i.



Task card 18 Complex Numbers in Polar Form & De...

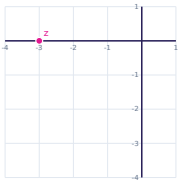
Write z = 2(cos 30° + i sin 30°) in the form a + bi.

Task card 19 Complex Numbers in Polar Form & De...

Use De Moivre's Theorem to write $[2(\cos 45° + i \sin 45°)]^2$ in the form a + bi.

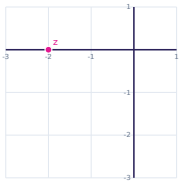
Task card 20 Complex Numbers in Polar Form & De...

Find the argument θ of z = -3.



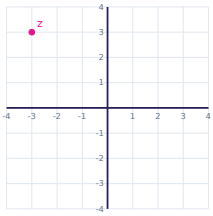
Task card 21 Complex Numbers in Polar Form & De...

Find the argument θ of z = -2.



Task card 22 Complex Numbers in Polar Form & De...

Find the argument θ of z = -3 + 3i.

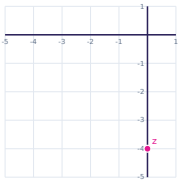


Task card 23 Complex Numbers in Polar Form & De...

Find the argument θ of z = $\sqrt{3}$ + i.

Task card 24 Complex Numbers in Polar Form & De...

Find the argument θ of z = -4i.



Complex Numbers in Polar Form & De Moivre's Theorem Task Cards

Recording sheet · Grade 12 · Give exact answers. Write complex numbers as a + bi (like -2√3 + 2i) and arguments in degrees with 0° ≤ θ < 360°.

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

Complex Numbers in Polar Form & De Moivre's Theorem Task Cards: Answer Key

Grade 12 · Easy

The answers online

1. 5	**2.** 90°	**3.** -2 + 2i
4. 5	**5.** 6	**6.** 25
7. 5	**8.** 315°	**9.** 135°
10. -4	**11.** 13	**12.** 10
13. 0°	**14.** 29	**15.** 17
16. 10	**17.** 45°	**18.** √3 + i
19. 4i	**20.** 180°	**21.** 180°
22. 135°	**23.** 30°	**24.** 270°