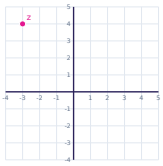
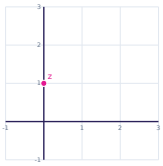
Complex Numbers in Polar Form & De Moivre's Theorem · 1

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



Complex Numbers in Polar Form & De Moivre's Theorem · 2

Find the argument θ of z = i.

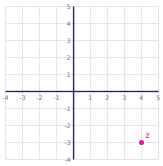


Complex Numbers in Polar Form & De Moivre's Theorem · 3

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

Complex Numbers in Polar Form & De Moivre's Theorem · 4

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



Complex Numbers in Polar Form & De Moivre's Theorem · 5

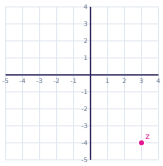
Write z = 6(cos 0° + i sin 0°) in the form a + bi.

Complex Numbers in Polar Form & De Moivre's Theorem · 6

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

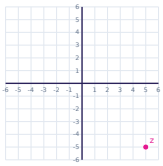
Complex Numbers in Polar Form & De Moivre's Theorem · 7

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



Complex Numbers in Polar Form & De Moivre's Theorem · 8

Find the argument θ of z = 5 - 5i.



Complex Numbers in Polar Form & De Moivre's Theorem · 2

ANSWER

90°

Complex Numbers in Polar Form & De Moivre's Theorem · 1

ANSWER

5

Complex Numbers in Polar Form & De Moivre's Theorem · 4

ANSWER

5

Complex Numbers in Polar Form & De Moivre's Theorem · 3

ANSWER

-2 + 2i

Complex Numbers in Polar Form & De Moivre's Theorem · 6

ANSWER

25

Complex Numbers in Polar Form & De Moivre's Theorem · 5

ANSWER

6

Complex Numbers in Polar Form & De Moivre's Theorem · 8

ANSWER

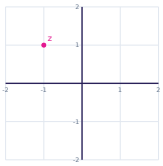
315°

Complex Numbers in Polar Form & De Moivre's Theorem · 7

ANSWER

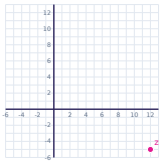
5

Find the argument θ of z = -1 + i.

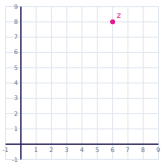


Write z = 4(cos 180° + i sin 180°) in the form a + bi.

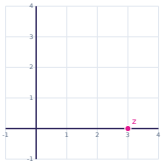
Find the modulus |z| of z = 12 - 5i.



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



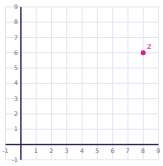
Find the argument θ of z = 3.



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

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

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



Complex Numbers in Polar Form & De Moivre's Theorem · 10

ANSWER

-4

Complex Numbers in Polar Form & De Moivre's Theorem · 9

ANSWER

135°

Complex Numbers in Polar Form & De Moivre's Theorem · 12

ANSWER

10

Complex Numbers in Polar Form & De Moivre's Theorem · 11

ANSWER

13

Complex Numbers in Polar Form & De Moivre's Theorem · 14

ANSWER

29

Complex Numbers in Polar Form & De Moivre's Theorem · 13

ANSWER

0°

Complex Numbers in Polar Form & De Moivre's Theorem · 16

ANSWER

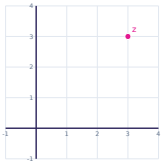
10

Complex Numbers in Polar Form & De Moivre's Theorem · 15

ANSWER

17

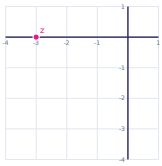
Find the argument θ of z = 3 + 3i.



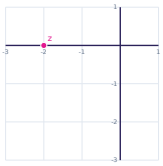
Write z = 2(cos 30° + i sin 30°) in the form a + bi.

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

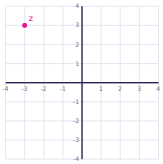
Find the argument θ of z = -3.



Find the argument θ of z = -2.

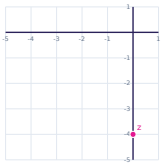


Find the argument θ of z = -3 + 3i.



Find the argument θ of z = √3 + i.

Find the argument θ of z = -4i.



Complex Numbers in Polar Form & De Moivre's Theorem · 18

ANSWER

$\sqrt{3} + i$

Complex Numbers in Polar Form & De Moivre's Theorem · 17

ANSWER

$45°$

Complex Numbers in Polar Form & De Moivre's Theorem · 20

ANSWER

$180°$

Complex Numbers in Polar Form & De Moivre's Theorem · 19

ANSWER

$4i$

Complex Numbers in Polar Form & De Moivre's Theorem · 22

ANSWER

$135°$

Complex Numbers in Polar Form & De Moivre's Theorem · 21

ANSWER

$180°$

Complex Numbers in Polar Form & De Moivre's Theorem · 24

ANSWER

$270°$

Complex Numbers in Polar Form & De Moivre's Theorem · 23

ANSWER

$30°$