

Answer on Question #34608 – Math – Complex Analysis

Question

Which is equivalent to $\frac{1}{5}\{\text{square root of } (625) - \text{square root of } (-225)\}$?

- A. $-5-3i$
- B. $3-5i$
- C. $6-3i$
- D. $5-3i$

Solution

$$\frac{1}{5}(\sqrt{625} - \sqrt{-225}) = \frac{1}{5}(\sqrt{25^2} - \sqrt{225i^2}) = \frac{1}{5}(\sqrt{25^2} - \sqrt{15^2i^2}) = \frac{1}{5}(25 - 15i) = \frac{25}{5} - \frac{15}{5}i = 5 - 3i.$$

Correct answer is D. $5-3i$.

Answer: D. $5-3i$.