

N.CN.A.2: Square Roots of Negative Numbers 3

- 1 Expressed in simplest form, $\sqrt{-18} - \sqrt{-8}$ is equivalent to
 - 1) $\sqrt{-10}$
 - 2) $5i$
 - 3) $i\sqrt{2}$
 - 4) $-i\sqrt{2}$
- 2 Expressed in simplest form, $\sqrt{-18} - \sqrt{-32}$ is
 - 1) $-\sqrt{2}$
 - 2) $-7\sqrt{2}$
 - 3) $-i\sqrt{2}$
 - 4) $7i\sqrt{2}$
- 3 When expressed as a monomial in terms of i , $2\sqrt{-32} - 5\sqrt{-8}$ is equivalent to
 - 1) $2\sqrt{2}i$
 - 2) $2i\sqrt{2}$
 - 3) $-2i\sqrt{2}$
 - 4) $18i\sqrt{2}$
- 4 Expressed in simplest form, $2\sqrt{-50} - 3\sqrt{-8}$ is equivalent to
 - 1) $16i\sqrt{2}$
 - 2) $3i\sqrt{2}$
 - 3) $4i\sqrt{2}$
 - 4) $-\sqrt{-42}$
- 5 If $2\sqrt{-2}$ is subtracted from $3\sqrt{-18}$, the difference is
 - 1) $7i\sqrt{2}$
 - 2) $11i\sqrt{2}$
 - 3) $-7i\sqrt{2}$
 - 4) $-11i\sqrt{2}$
- 6 In terms of i , express in simplest form:
 $\sqrt{-64} - 3\sqrt{-4}$
- 7 Express as a monomial in terms of i :
 $3\sqrt{-32} - \sqrt{-8}$
- 8 Express $7\sqrt{-8} - \sqrt{-50}$ as a monomial in terms of i .
 - 1) $3i\sqrt{2}$
 - 2) $3i\sqrt{10}$
 - 3) $-3i\sqrt{2}$
 - 4) $-3i\sqrt{10}$
- 9 Express $4\sqrt{-25} - 2\sqrt{-81}$ as a monomial in terms of i .
 - 1) $10i$
 - 2) $-10i$
 - 3) $18i$
 - 4) $-18i$
- 10 Express $3\sqrt{-16} - 2\sqrt{-9}$ in terms of i .
 - 1) $10i$
 - 2) $-10i$
 - 3) $18i$
 - 4) $-18i$
- 11 Express as a monomial in terms of i :
 $8\sqrt{-36} - 4\sqrt{-49}$
- 12 Express in simplest form in terms of i :
 $5\sqrt{-25} - 3\sqrt{-100}$
- 13 Express $4\sqrt{-144} - 3\sqrt{-49}$ as a monomial in terms of i .
 - 1) $10i$
 - 2) $-10i$
 - 3) $18i$
 - 4) $-18i$
- 14 Express $3\sqrt{-27} - 2\sqrt{-75}$ as a monomial in terms of i .
 - 1) $10i$
 - 2) $-10i$
 - 3) $18i$
 - 4) $-18i$
- 15 Simplify and express in terms of i :
 $5\sqrt{-4} + \sqrt{-1} - 2\sqrt{-9}$

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Answer Section

1 ANS: 3 REF: 018521siii

2 ANS: 3
 $\sqrt{9}\sqrt{-1}\sqrt{2} - \sqrt{16}\sqrt{-1}\sqrt{2} = 3i\sqrt{2} - 4i\sqrt{2} = -i\sqrt{2}$

REF: 061404a2

3 ANS: 3
 $2\sqrt{-32} - 5\sqrt{-8} = 8i\sqrt{2} - 10i\sqrt{2} = -2i\sqrt{2}$

REF: 080507b

4 ANS: 3 REF: 089018siii

5 ANS: 1 REF: 069929siii

6 ANS:
 $2i$

REF: 019702siii

7 ANS:
 $10i\sqrt{2}$

REF: 068907siii

8 ANS:
 $9i\sqrt{2}$

REF: 088904siii

9 ANS:
 $2i$

REF: 080006siii

10 ANS:
 $6i$

REF: 018903siii

11 ANS:
 $20i$

REF: 010402siii

12 ANS:
 $-5i$

REF: 060203siii

13 ANS:
 $27i$

REF: 069404siii

14 ANS:

$$-i\sqrt{3}$$

REF: 019403siii

15 ANS:

$$5i$$

REF: 088606siii