Inter Algebra & Trig

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Section 1. Solve Each of the Following:

1. $x^2 + 6x = 10$
2. $x^2 - 8x + 20 = 0$
3. $2x^2 - 10 = 8$

Section 2. Find Each of the Following:

4. $(2 - 3i) - (6 - 7i)$
5. i^{39}

Section 3. Find the Following: (Each Will Count 5)

6. $sin(35°)$
7. $cos(75°)$
8. $sin(82°)$
9. $tan(14°)$

Section 4. Find the Following: (Each Will Count 5)

10. $sin(A) = .6018$
11. $tan(A) = 1.540$
12. $cos(A) = .6018$
13. $cos(A) = .8192$

Section 5. Given the Following – Find the Rest:
A, B, C to the nearest degree and a, b, c to the nearest tenth

14. $a = 6.0$ $A = 35°$
15. $a = 35.2$ $b = 24.6$

Answer Key for Inter Algebra & Trig

Section 1. Solve Each of the Following:

1. $x^2 + 6x = 10$

   Answer: $-3 + \sqrt{19}, -3 - \sqrt{19}$

2. $x^2 - 8x + 20 = 0$

   Answer: $4 + 2i, 4 - 2i$

3. $2x^2 - 10 = 8$

   Answer: $3, -3$

Section 2. Find Each of the Following:

4. $(2 - 3i) - (6 - 7i)$

   Answer: $-4 + 4i$

5. i^{39}

   Answer: $-i$

Section 3. Find the Following: (Each Will Count 5)

6. $sin(35°)$

   Answer: 0.5736

7. $cos(75°)$

   Answer: 0.2588

8. $sin(82°)$

   Answer: 0.9903

9. $tan(14°)$

   Answer: 0.2493

Section 4. Find the Following: (Each Will Count 5)

10. $sin(A) = .6018$

Answer: $37°$

11. $tan(A) = 1.540$

    Answer: $57°$

12. $cos(A) = .6018$

    Answer: $53°$

13. $cos(A) = .8192$

    Answer: $35°$

Section 5. Given the Following – Find the Rest:
A, B, C to the nearest degree and a, b, c to the nearest tenth

14. $a = 6.0$ $A = 35°$

    Answer: $B = 55°$, $b = 8.6$, $c = 10.5$

15. $a = 35.2$ $b = 24.6$

    Answer: $A = 55°$, $B = 35°$, $c = 42.9$