

## Worksheet 3.2A

Find the square root of each.

1)  $\sqrt{-45}$   $3i\sqrt{5}$

3)  $\sqrt{-80}$   $4i\sqrt{5}$

5)  $\sqrt{-72}$   $6i\sqrt{2}$

2)  $\sqrt{-20}$   $2i\sqrt{5}$

4)  $\sqrt{-75}$   $5i\sqrt{3}$

6)  $\sqrt{-72}$   $6i\sqrt{2}$

Simplify each expression.

7)  $(5-2i) + (3+6i)$   $8+4i$

9)  $(-3-i) + (5-4i)$   $2-5i$

11)  $(7-5i) - (11-4i)$   $-4-i$

13)  $(5+3i) - (-12+8i)$   $17-5i$

15)  $(4-2i)(3-5i)$   $2-26i$

17)  $(2+3i)^2$   $-5+12i$

8)  $(4+3i) + (7-2i)$   $11+i$

10)  $(8+7i) + (-9+6i)$   $-1+13i$

12)  $(-3-2i) - (-10+5i)$   $7-7i$

14)  $(15-9i) - (2-11i)$   $13+2i$

16)  $(3-4i)(1-2i)$   $-5-10i$

18)  $(3-4i)^2$   $-7-24i$

Find the zeros of the function.

19)  $0 = x^2 + 32$   $\pm 4i\sqrt{2}$

21)  $0 = x^2 + 27$   $\pm 3i\sqrt{3}$

23)  $8 = 2x^2 + 56$   $\pm 2i\sqrt{6}$

20)  $x^2 + 60 = 6$   $\pm 3i\sqrt{6}$

22)  $0 = x^2 + 63$   $\pm 3i\sqrt{7}$

24)  $-16 = 3x^2 + 68$   $\pm 2i\sqrt{7}$