

6, 7, 8, 17, 10, 20, 1

$$1. \sqrt{-9} = i \cdot 3 = \boxed{3i}$$

$$6. (i\sqrt{13})^2 = i^2 \cdot (\sqrt{13})^2 \\ = -1 \cdot 13 = \boxed{-13}$$

$$7. -\frac{5}{i} \cdot \frac{i}{i} = -\frac{5i}{i^2} = -\frac{5i}{-1} = \boxed{5i}$$

$$8. \frac{18}{\sqrt{-3}} \cdot \frac{\sqrt{-3}}{\sqrt{-3}} = \frac{18\sqrt{-3}}{-3} = -6\sqrt{-3} \\ \boxed{-6i\sqrt{3}}$$

$$10. i\sqrt{50}(\sqrt{-18})$$

$$i\sqrt{-900}$$

$$i \cdot i \cdot 30$$

$$i^2 \cdot 30 = \boxed{-30}$$

$$17. (1 - i\sqrt{3})^2$$

$$(1 - i\sqrt{3})(1 - i\sqrt{3})$$

$$1 - \underbrace{i\sqrt{3} - i\sqrt{3}} + i^2 \cdot 3$$

$$1 - 2i\sqrt{3} - 3$$

$$\boxed{-2 - 2i\sqrt{3}}$$

$$20. i^{132} = 1 \quad \frac{132}{4} = 33$$

$$i = i \quad \frac{1}{4} = .25$$

$$i^2 = -1 \quad \frac{2}{4} = .5$$

$$\rightarrow i^3 = -i \quad \frac{3}{4} = .75$$

$$\rightarrow i^4 = 1 \quad \frac{4}{4} = 1$$

$$i^{900} \quad \frac{900}{4} = 225$$

$$i^{315} \quad \frac{315}{4} = 78.75 \\ \boxed{i = -i}$$

$$\boxed{3 \cdot 3 \cdot 3 \cdot 2}$$

$$3\sqrt{6}$$