

3, 5, 12, 8, 15

$$3. -4\sqrt{-36} = -4 \cdot 6i = -24i$$

$$5. \sqrt{-20} = 2i\sqrt{5}$$

$\begin{array}{c} \wedge \\ 4 \quad 5 \\ \triangle \\ \textcircled{22} \end{array}$

$$8. 5\sqrt{-27} = 5 \cdot 3i\sqrt{3}$$

$\begin{array}{c} \wedge \\ 9 \quad 3 \\ \triangle \\ \textcircled{33} \end{array} \quad 15i\sqrt{3}$

$$5\sqrt{27} = 15\sqrt{3}$$

$$9. 2i \cdot 3i = 6i^2 = \textcircled{-6}$$

$i^2 = -1$

$$12. \sqrt{-6} \cdot \sqrt{2} = \sqrt{-12} = \textcircled{2i\sqrt{3}}$$

$\begin{array}{c} \wedge \\ 4 \quad 3 \\ \triangle \\ \textcircled{22} \end{array}$

$$15. (7i)^2 = 49i^2 = -49$$

# HW Assessment

4/14

6.  $\sqrt{-75}$

$$(i\sqrt{5})^2 = i^2 \cdot 5 = -5$$

$$(-4i\sqrt{3})^2 = 16i^2 \cdot 3 = \textcircled{-48}$$

$$\frac{-4}{i} \cdot \frac{i}{i} = \frac{-4i}{i^2} = \frac{-4i}{-1} = 4i$$

$$\frac{7}{3i} \cdot \frac{i}{i} = \frac{7i}{3i^2} = -\frac{7i}{3}$$

$$\frac{9}{\sqrt{-9}} = \frac{9}{3i} \cdot \frac{i}{i} = \frac{9i}{3i^2} = \frac{9i}{-3}$$

$\textcircled{-3i}$

$$\frac{4\sqrt{-18}}{\sqrt{-12}} = 4 \sqrt{\frac{+18}{+12}} = 4\sqrt{\frac{3}{2}} = \frac{4\sqrt{3}}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$$

$$\frac{4\sqrt{6}}{\sqrt{4}} = \frac{4\sqrt{6}}{2} = \textcircled{2\sqrt{6}}$$

your turn!

$$1) (-2i\sqrt{7})^2$$

$$2) \frac{-5}{i}$$

$$3) \frac{6}{\sqrt{-2}} \cdot \frac{\sqrt{-2}}{\sqrt{-2}} = \frac{6\sqrt{-2}}{\sqrt{4}} = \frac{6\sqrt{-2}}{2} = 3\sqrt{-2}$$

$$3i\sqrt{2}$$

$$\frac{6}{\sqrt{-2}} = \frac{6}{i\sqrt{2}} \cdot \frac{i\sqrt{2}}{i\sqrt{2}} = \frac{6i\sqrt{2}}{i^2\sqrt{4}} = \frac{6i\sqrt{2}}{-2}$$

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