Name _____ Date _____

Year Group _____

Convert the following complex numbers in standard to trigonometric form and plot the point. Show all steps. Answers $0° \leq \theta \leq 360°$. Round to the nearest tenth.

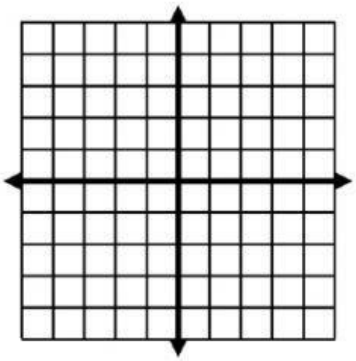
1. $3 + 2i$

$$r = \sqrt{a^2 + b^2} \qquad tan\theta = \frac{b}{a}$$

Steps => $r = \sqrt{___^2 + ___^2}$ Steps => $tan\theta = \frac{___}{___}$

Steps => $r = \sqrt{___ + ___}$ Steps => $\theta = tan^{-1}\left(\frac{___}{___}\right)$

Steps => $r = \sqrt{___}$ Steps => $\theta = ___°$



Answer => $___\sqrt{___} * [\cos(___°) + i * \sin(___°)$

Convert the following complex numbers in standard to trigonometric form and plot the point. Answers $0° \leq \theta \leq 360°$. Round to the nearest tenth.

2. $5 - 3i$

Answer => $___\sqrt{___} * [\cos(___°) + i * \sin(___°)$

3. $-4 + 5i$

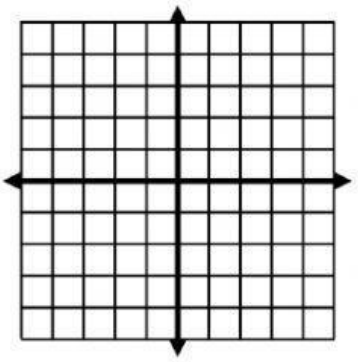
Answer => $___\sqrt{___} * [\cos(___°) + i * \sin(___°)$

4. $-3 - 3i$

Answer => $___\sqrt{___} * [\cos(___°) + i * \sin(___°)$

5. $-3\sqrt{2} + 4i$

Answer => $___\sqrt{___} * [\cos(___°) + i * \sin(___°)$



LIVEWORKSHEETS