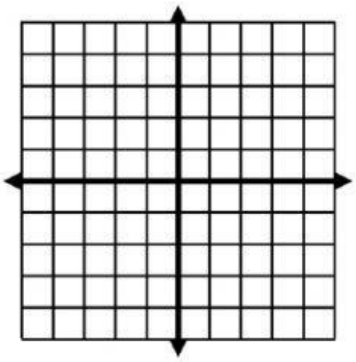
Name _____ Date _____

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

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

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

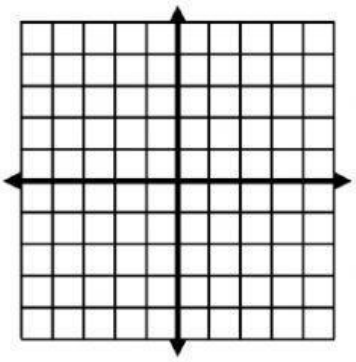
Answer => $___\sqrt{___} * [\cos(___°) + i * \sin(___°)$

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