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Math worksheet on *'Complex Numbers - Rectangular to Exponential Form (Radians) (Level 1)'*. Part of a broader unit on *'Complex Numbers'*

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1 Find the exponential form in radians of this complex number

$$4 + 5i$$

a	b	c
$9.5e^{1.4\pi i}$	$8.5e^{1\frac{7}{18}\pi i}$	$7.2e^{1.3\pi i}$

d	e	f
$7.6e^{0.4\pi i}$	$6.7e^{1.4\pi i}$	$6.4e^{0.3\pi i}$

2 Find the exponential form in radians of this complex number

$$2 - 6i$$

a	b	c
$6.4e^{1.7\pi i}$	$5.1e^{1.6\pi i}$	$7.6e^{0.4\pi i}$

d	e	f
$6e^{1\frac{1}{2}\pi i}$	$7.3e^{1.6\pi i}$	$6.3e^{1.6\pi i}$

3 Find the exponential form in radians of this complex number

$$-4 + 3i$$

a	b	c
$7.2e^{1.2\pi i}$	$9.8e^{1.1\pi i}$	$7.6e^{1.1\pi i}$

d	e	f
$4.2e^{1.3\pi i}$	$8.5e^{1\frac{1}{9}\pi i}$	$5e^{0.8\pi i}$

4 Find the exponential form in radians of this complex number

$$-4 + 4i$$

a	b	c
$5.7e^{0.8\pi i}$	$8.2e^{1.4\pi i}$	$4.5e^{1.4\pi i}$

d	e	f
$4.1e^{0.9\pi i}$	$5.4e^{0.9\pi i}$	$4.2e^{0.8\pi i}$

5 Find the exponential form in radians of this complex number

$$4 - 6i$$

a	b	c
$7.3e^{1.6\pi i}$	$2.2e^{0.9\pi i}$	$7.2e^{1.7\pi i}$

d	e	f
$4.5e^{0.6\pi i}$	$3.2e^{0.9\pi i}$	$8.2e^{0.6\pi i}$

6 Find the exponential form in radians of this complex number

$$3 - 5i$$

a	b	c
$5e^{1.8\pi i}$	$6.4e^{1.8\pi i}$	$5.7e^{0.8\pi i}$

d	e	f
$3.6e^{1.8\pi i}$	$5.4e^{1.9\pi i}$	$5.8e^{1.7\pi i}$

7 Find the exponential form in radians of this complex number

$$-5 + 5i$$

a	b	c
$5.1e^{0.9\pi i}$	$7.1e^{0.8\pi i}$	$4.1e^{0.1\pi i}$

d	e	f
$5e^{2\pi i}$	$5.7e^{0.8\pi i}$	$3.6e^{0.8\pi i}$