

EXERCISE 3 – Negative Angles

Simplify as far as possible:

$$1) \quad \frac{2 \sin(180^\circ - x) \cdot \cos(-x)}{\sin(-180^\circ - x) \cdot \cos(x - 180^\circ)}$$

$$2) \quad \frac{\sin(180^\circ + x) \cdot \cos(-x)}{\tan(-x)} + \sin(x - 360^\circ) \cdot \sin(x - 180^\circ)$$

$$3) \quad 1 - \frac{\sin^2(180^\circ + x)}{\cos(x - 180^\circ) \cdot \cos(x - 360^\circ)}$$

$$4) \quad \frac{1 + \sin(-x)}{\cos^2(x - 180^\circ)}$$

$$5) \quad \frac{\tan(x - 180^\circ) + \sin(180^\circ + x) \cdot \cos(-x)}{\sin^2(360^\circ - x)}$$