## **Year 10 Indices Test**

## Express all answers with positive indices

**Simplify:** 

(a) 
$$7g^5 h^4 \times 2g^2 h^{-3}$$

**(f)** 
$$(a^{-4}b^3)^5$$

**(b)** 
$$72p^5t^{-1} \div 3p^{14}t^{-3}$$

$$(\mathbf{g})(\frac{a^{-5}b}{c^{-3}})^2$$

(c) 
$$2g^3h^5 \times (-6)g^2h^2$$

**(h)** 
$$c^{\frac{2}{5}} \times c^{\frac{1}{4}}$$

**(d)** 
$$-28p^5t^3 \div (-7)p^3t^5$$

(i) 
$$a^{\frac{3}{4}} \times a^{\frac{2}{3}}$$

**(e)** 
$$(5a^{-3})^2$$

**(j)** 
$$6^{-2}a^2b^{-5}$$

**Evaluate:** 

(a) 
$$2^{-3}$$
.

**(b)** 
$$3 \times 25^{0.5}$$
.

(d) 
$$2^{10}$$

(c) 
$$5 \times 8^{\frac{1}{3}}$$

(e) 
$$5 \times (512^{\frac{1}{3}})^{\frac{1}{3}}$$