

Chicago State University  
Mathematics and Computer Science

## Gateway 1

### Exponents

**Legend:** A **i** indicates that the student gave the correct response; a **,** indicates an incorrect response. Passing is  $\geq 9/10$ . Typeset in L<sup>A</sup>T<sub>E</sub>X with D. P. Story's **AcroTeX** package. We gratefully acknowledge his kind permission to use the package.



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## Practice

1.  $-(-8)^{-2} =$

2.  $(-4x)^3 =$

3.  $2(4x)^2 =$

4.  $-5(-9x)^{-2} =$



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$$5. \frac{3}{2} \left( \frac{3}{4} x \right)^2 =$$

$$6. (-2x^{-3}y^{10})^2(3x^{19}y^3) =$$

$$7. (x^9y^4)^2 =$$



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$$8. \frac{x^4}{x^2} =$$

$$9. \frac{(x^9 y^{10})^2 (2y^{-2})^{-3}}{2x^5 y^6 x^9} =$$

$$10. \frac{(x^{-8} y^{-2})^6 (y^2)^8}{(x^6 y^{-3})^{-8} y^{-6}} =$$



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