Simplifying Exponential Expressions Practice Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour \_\_\_\_\_

Use the rules and examples below to simplify each exponential expressiond









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| **1.** | 160 | ***2.*** | 4 –2 | **3.** | 3 –3 | **4.** | 8–4 |

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| **5.** | 3 **•** 80 | **6.** | 16 **•** 2–2 | **7.** | 12–1 | **8.** | –7–2 |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **9.** | 16 **•** 40 | **10.** | 4*a–3* | **11.** | 5(–6)0 | **12.** | 2 *a 2 b*–2 |

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| **13.** | *x* –8 | **14.** | *xy*–3 | **15.** | *a–*5 *b* | **16.** | *m 2 n –9* |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **17.** |  | **18.** |  | **19.** |  | **20.** |  |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **21.** | 2*a* –1 *b*–2 | **22.** | –4*ab* –3 | **23.** | 3 –2 *a* –2 *b*–1 | **24.** |  -5 *x* –2 *y*–1 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **25.** | *b –2* | **26.** | *a* –3 | **27.** | (*–a*)–4 | **28.** | –*b–3* |

**Solve each system of equations using substitution.**

**29.** *x = –*2*y* + 1 **30.** *y =* 5*x +* 5**31.** *y = x –* 3

*x = y –* 5 *y =* 15*x –* 1 *y = –*3*x +* 25