Name

Class

Date



1-2

Order of Operations and Evaluating Expressions

**Practice** *Form G*

**Simplify each expression.**

|  |  |  |
| --- | --- | --- |
| **1.** 42 | **2.** 53 | **3.** 116 |
| **4.** | **5.** (1 + 3)2 | **6.** (0.1)3 |
| **7.** 5 + 3(2) | **8.** | **9.** 44(5) + 3(11) |
| **10.** 17(2) − 42 | **11.** | **12.** |
| **13.** (4(5))3 | **14.** 25 − 42 ÷ 22 | **15.** |

|  |  |  |
| --- | --- | --- |
| **16.** *s +* 6 | **17.** 5 − *t* | **18.** 11.5 + *s*2 |
| **19.** | **20.** 3(*t*)3 + 10 | **21.** *s*3 + *t*2 |
| **22.** –4(*s*)2 + *t*3 ÷ 5 | **23.**  | **24.** |

**Evaluate each expression for *s =*** **2 and *t =*** **5.**

**25.** Every weekend, Morgan buys interesting clothes at her local thrift store and then resells them on an auction website. If she brings $150.00 and spends *s*, write an expression for how much change she has. Evaluate your expression for *s =* $27.13 and *s =* $55.14.

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Name

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1-2

Order of Operations and Evaluating Expressions

**Practice**(continued) *Form G*

**26.** A bike rider is traveling at a speed of 15 feet per second. Write an expression for the distance the rider has traveled after *s* seconds. Make a table that records the distance for 3.0, 5.8, 11.1, and 14.0 seconds.

**Simplify each expression.**

|  |  |  |
| --- | --- | --- |
| **27.** 4[(12 + 5) − 44] | **28.** 3[(4 − 6)2 + 7]2 | **29.** |
| **30. [**(48 ÷ 8)3 − 7]3 | **31.** | **32.** 4[11 − (55 − 35) ÷ 3] |

**33. a.** If the tax that you pay when you purchase an item is 12% of the sale price,

write an expression that gives the tax on the item with a price *p*. Write another expression that gives the total price of the item, including tax.

**b.** What operations are involved in the expressions you wrote?

**c.** Determine the total price, including tax, of an item that costs $75.

**d.** Explain how the order of operations helped you solve this problem.

**34.** The cost to rent a hall for school functions is $60 per hour.
Write an expression for the cost of renting the hall for

*h* hours. Make a table to find how much it will cost to rent the hall for 2, 6, 8, and 10 hours.

**Evaluate each expression for the given values of the variables.**

|  |  |
| --- | --- |
| **35.** 4(*c +* 5) − *f* 4; *c =* −1, *f =* 4 | **36. −**3[(*w −* 6)2 + *x*]2; *w =* 5, *x =* 6 |
| **37.** 3.5[*h*3 − ]; *h =* 3, *j =* –4 | **38.** *x*[*y*2 − (55 − *y*5) ÷ 3]; *x = −*6, *y =* 6 |

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