

Name:

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Date:

Math - Worksheets 2.1 & 2.2

Answer Key

### Order of Operations (p14)

$$\begin{aligned} 1. & (3^2 + 2 \times 3) \div 5 \\ & (9 + 6) \div 5 \\ & 15 \div 5 \\ & 3 \end{aligned}$$

$$\begin{aligned} 2. & 5^2 - 4^2 + 2 \\ & 25 - 16 + 2 \\ & 9 + 2 \\ & 11 \end{aligned}$$

$$\begin{aligned} 3. & (4+2)^2 \\ & (6)^2 \\ & 36 \end{aligned}$$

$$\begin{aligned} 4. & (11-8)^3 \\ & 3^3 \\ & 27 \end{aligned}$$

$$\begin{aligned} 5. & 2(7+2) \\ & 2(9) \\ & 18 \end{aligned}$$

$$\begin{aligned} 6. & (9-7)^3 - (4+3) \\ & (2)^3 - (7) \\ & 8 - 7 \\ & 1 \end{aligned}$$

$$\begin{aligned} 7. & (14-6)2 \\ & (8)2 \\ & 16 \end{aligned}$$

$$\begin{aligned} 8. & 4+3(12-9) \\ & 4+3(3) \\ & 4+9 \\ & 13 \end{aligned}$$

$$\begin{aligned} 9. & 5^2 - 2^3 \\ & 25 - 8 \\ & 17 \end{aligned}$$

$$\begin{aligned} 10. & 3 \times 8 - (3 \times 2 + 7) \\ & 24 - (6 + 7) \\ & 24 - 13 \\ & 11 \end{aligned}$$

$$\begin{aligned} 11. & (5^2 - 3 \times 5) \div 2 \\ & (25 - 15) \div 2 \\ & 10 \div 2 \\ & 5 \end{aligned}$$

$$\begin{aligned} 12. & 7 + 2^2(5+2) \\ & 7 + 4(7) \\ & 7 + 28 \\ & 35 \end{aligned}$$

$$13. \quad 3 + 7^2$$

$$3 + 49$$

$$52$$

$$14. \quad (2^2 + 3)^2 - 4$$

$$(4 + 3)^2 - 4$$

$$(7)^2 - 4$$

$$49 - 4$$

$$45$$

$$15. \quad 6 + 7 \times 3 - 9 \times 2$$

$$6 + 21 - 18$$

$$6 + 3$$

$$9$$

$$16. \quad (2 \times 3) + (21 \div 7)$$

$$6 + 3$$

$$9$$

$$17. \quad 7^2 - 2(3 \times 3 + 5)$$

$$49 - 2(9 + 5)$$

$$49 - 2(14)$$

$$49 - 28$$

$$21$$

$$18. \quad 3 + (6 \times 2)$$

$$3 + 12$$

$$15$$

page 15

$$1) \quad 8 - 4 \cdot 5(3 - 2) + 3$$

$$8 - 4 \cdot 5(1) + 3$$

$$8 - 20 + 3$$

$$-9$$

$$2) \quad 12 \div (2 - 7) + 7$$

$$12 \div (-5) + 7$$

$$-2.4 + 7$$

$$4.6$$

$$3) \quad (14 - 9) + 4$$

$$(5) + 4$$

$$9$$

$$4) \quad \frac{3^2 - 5 \cdot 7 - 4^2}{(-4 - 7 - 12) + 8}$$

$$= \frac{9 - 35 - 16}{-23 + 8}$$

$$= \frac{-42}{-15}$$

$$= \frac{14}{5}$$

$$5) \quad 9(3 \div 3) + 4(-5 \cdot 9) \div 3$$

$$9(1) + 4(-45) \div 3$$

$$9 - 60$$

$$-51$$

$$6) \quad 3 - (6 \cdot 6) - 3 \cdot 0$$

$$3 - 36 - 0$$

$$-33$$

$$7) \frac{36 \div 9 - 8 + 21 \div 3}{4 - 8 + 7}$$

$$= \frac{-4 + 7}{3}$$

$$8) 5(3-8) \cdot 3 + 8 - 3$$

$$= 5(-5) \cdot 3 + 8 - 3$$

$$= -25 \cdot 3 + 8 - 3$$

$$= -75 + 8 - 3$$

$$= -70$$

$$9) \frac{3 \cdot 5 + 9 \cdot 7}{15 + 63}$$

$$= \frac{78}{78}$$

$$10) \frac{(5-9)^2 + 2}{(7-8)^2 \cdot 3^2}$$

$$= \frac{(4)^2 + 2}{(-1)^2 \cdot 9}$$

$$= \frac{16 + 2}{1 \cdot 9}$$

$$= \frac{18}{9}$$

$$= 2$$

$$11) 4^2 + 3^2 - 7^2$$

$$= 16 + 9 - 49$$

$$= 25 - 49$$

$$= -24$$

$$12) \frac{3^2 - 10}{4^2 - 12}$$

$$= \frac{9 - 10}{16 - 12}$$

$$= \frac{-1}{4}$$

$$13) 8^2 - \frac{26}{(4+9)} + 4$$

$$= 64 - \frac{26}{13} + 4$$

$$= 64 - 2 + 4$$

$$= 66$$

$$14) \frac{5 \cdot 7 - (3+4)}{-2^2 - 2^2 + 3^2}$$

$$= \frac{35 - (7)}{-4 - 4 + 9}$$

$$= \frac{28}{1}$$

$$= 28$$

$$15) \frac{4 + 2 \cdot 3 + 4 - 3}{2^2 \cdot 3^2 - 3}$$

$$= \frac{4 + 6 + 4 - 3}{4 \cdot 9 - 3}$$

$$= \frac{11}{36 - 3}$$

$$= \frac{11}{33} = \frac{1}{3}$$

$$16) \frac{3 + 10 - 19 + 32}{3^2 - 1 + 2^2}$$

$$= \frac{26}{9 - 1 + 4}$$

$$= \frac{26}{12}$$

$$= \frac{13}{6}$$

$$17) 12 \div [3 + (6+3)]$$

$$= 12 \div [3 + 9]$$

$$= 12 \div 12$$

$$= 1$$

$$18) 3 \cdot (0-7) + 8 \div 2^2$$

$$= 3 \cdot (-7) + 8 \div 4$$

$$= -21 + 2$$

$$= -19$$

