

NAME: _____ DATE: _____

PRACTICE ON UNITS 1.1 AND 1.2 OF ALGEBRA I
(SIMPLIFY EACH OF THE FOLLOWING)

1. To add or subtract, the names have to be the _____.

In Algebra we call them _____ terms.

When you add or subtract, the name _____ the _____.

2. $9M + 8M =$ _____ 3. $9XB - 3XB =$ _____

4. $\frac{5}{13} + \frac{7}{13} =$ _____ 5. $\frac{8}{11} - \frac{3}{11} =$ _____

6. $11\sqrt{7} + 3\sqrt{7} =$ _____ 7. $8\sqrt{15} - 2\sqrt{15} =$ _____

8. $12\sqrt{3} + \frac{2}{11} + 5M + 7\sqrt{3} + 3M + \frac{5}{11} =$ _____

9. When you multiply, you multiply the _____
and you multiply the _____ and you get a _____
name. When you multiply with like bases you _____
the exponents.

10. $9X^8 \times 4X^9 =$ _____ 11. $0.7 \times 0.6 =$ _____

$$12. \frac{3}{8} \times \frac{7}{11} = \underline{\hspace{2cm}}$$

$$13. 1.7 \times 2.6 = \underline{\hspace{2cm}}$$

$$14. 5\sqrt{7} \times 3\sqrt{2} = \underline{\hspace{2cm}}$$

$$15. (0.8)^2 = \underline{\hspace{2cm}}$$

$$16. 7X^5Y^9Z^4 \times 5X^7Y^4Z^2 = \underline{\hspace{2cm}}$$

17. When you divide with like bases you _____ the exponents. Remember that a fraction bar represents division.

$$18. X^{12} \div X^7 = \underline{\hspace{2cm}}$$

$$19. \frac{M^{11}}{M^7} = \underline{\hspace{2cm}}$$

$$20. \frac{15X^8Y^2}{25X^5Y^7} = \underline{\hspace{2cm}}$$

NAME: _____ DATE: _____

PRACTICE ON UNITS 1.1, 1.2, AND 1.5 OF ALGEBRA I
(SIMPLIFY EACH OF THE FOLLOWING)

1. To add or subtract, the names have to be the _____.

In Algebra we call them _____ terms.

When you add or subtract, the name _____ the _____.

2. $14M + 12M =$ _____ 3. $17\sqrt{17} - 11\sqrt{17} =$ _____

4. When you multiply, you multiply the _____
and you multiply the _____ and you get a _____
name. When you multiply with like bases you _____
the exponents.

5. $4X^2Y^5Z^3 \times 11X^7Y^2Z^8 =$ _____

6. $8\sqrt{13} \times 7\sqrt{3} =$ _____

7. When you divide with like bases you _____ the
exponents. Remember that a fraction bar represents
division.

8. $X^{11} \div X^8 =$ _____ 9. $\frac{18X^7Y^7}{12X^3Y^{17}} =$ _____

10. Any number raised to the First Power equals _____.

11. $14^1 =$ _____ 12. $M^1 =$ _____

13. Any number raised to the Zero Power is _____.

14. $5^0 =$ _____ 15. $K^0 =$ _____

16. The One Half Power means _____.

17. $49^{\frac{1}{2}} =$ _____ $=$ _____ 18. $R^{\frac{1}{2}} =$ _____

19. An exponent of Two means the number times _____.

20. $9^2 =$ _____ \times _____ $=$ _____

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PRACTICE ON UNITS 1.1,1.2,1.3,1.4, and 1.5 OF ALGEBRA I

FRACTIONS, DECIMALS AND UNITS OF MEASURE
(SIMPLIFY EACH OF THE FOLLOWING).

1. To add or subtract the names have to be the _____.

In Algebra we call them _____.

For fractions we say that we need a _____

_____. When you add or subtract, the name

_____ the same.

2. To carry or borrow you ask the question, _____

_____ does it take to _____

_____.

$$\begin{array}{r} 3. \quad \frac{5}{8} \\ + \frac{3}{4} = \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad \frac{7}{8} \\ - \frac{2}{3} = \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 9\frac{7}{11} \\ + 5\frac{9}{11} = \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 13\frac{2}{11} \\ - 2\frac{7}{11} = \\ \hline \end{array}$$

1 yard = 3 feet 1 foot = 12 inches

$$\begin{array}{r} 7. \quad 5 \text{ yards } 2 \text{ feet } 6 \text{ inches} \\ + 3 \text{ yards } 2 \text{ feet } 11 \text{ inches} \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 7 \text{ yards } 2 \text{ feet } 5 \text{ inches} \\ - 4 \text{ yards } 2 \text{ feet } 11 \text{ inches} \\ \hline \end{array}$$

9. When you multiply, you multiply the _____
and you _____ the _____ and you get a
_____ name.

10. To multiply decimals you count up the number of _____
_____ in the _____ and put that many
_____ in the _____.

11. To divide by a fraction you _____ it and then
_____.

12. To divide by a decimal move it over enough places
in the _____ so that it becomes a
_____ then move it the same
number of spaces in the _____.

$$13. \quad \frac{5}{11} \times \frac{3}{4} =$$

$$14. \quad \frac{5}{8} \div \frac{2}{3} =$$

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Practice on Unit 1.6 of Algebra I

1. $\sqrt{\quad}$ means _____ which means what
_____ =

2. $\sqrt[3]{\quad}$ means _____ which means what
_____ 3 times =

Simplify

3. $\sqrt{121}$

4. $\sqrt[3]{64}$

5. $\sqrt{125}$

6. $\sqrt[3]{81}$

7. $5\sqrt{7} \times 4\sqrt{35}$

8. $5\sqrt[3]{18} \times 3\sqrt[3]{15}$

9. $\frac{\sqrt{120}}{\sqrt{30}}$

10. $\sqrt{360}$

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Practice on Unit 1.7 Sign Rules

1. To add or subtract with the same sign you _____ and take the _____ sign.

2. $-9 + -7 =$ _____ 3. $-6 - 11 =$ _____ 4. $8 - -6 =$ _____

5. To add or subtract with different signs you _____ and take the _____ sign.

6. $-14 + 5 =$ _____ 7. $-8 - -9 =$ _____ 8. $6 + -13 =$ _____

9. When you multiply or divide with the same sign the answer is _____.

10. $-5 \times -9 =$ _____ 11. $5 \times 7 =$ _____ 12. $-12 \div -3 =$ _____

13. When you multiply or divide with different signs the answer is _____.

14. $7 \times -4 =$ _____ 15. $-39 \div 3 =$ _____

Simplify each expression by combining like terms using sign rules.

16. $5X + 6X =$ _____

17. $-13Y + 9Y =$ _____

18. $7X - 5Y + 2X + 13Y =$ _____

19. $-9FM + 6DR - 4FM + 7DR =$ _____

20. $4X + 5 + 6X + 7 =$ _____