

Assignment

Date _____ Period _____

Simplify.

1) $-\sqrt{15}(3 + \sqrt{10})$

2) $\sqrt{5}(5 - 3\sqrt{5})$

3) $\sqrt{5}(\sqrt{3} + \sqrt{2})$

4) $-\sqrt{2}(2 + \sqrt{2})$

5) $-2\sqrt{15}(2 - 5\sqrt{3})$

6) $-\sqrt{2}(\sqrt{3} - 3\sqrt{10})$

7) $2\sqrt{5}(2 + 4\sqrt{10})$

8) $\sqrt{15}(4\sqrt{6} + \sqrt{5})$

9) $-4\sqrt{10}(-5\sqrt{2} + 2)$

10) $3\sqrt{2}(4 + \sqrt{2})$

11) $\sqrt{15}(\sqrt{5} + \sqrt{6})$

12) $3\sqrt{10}(\sqrt{2} + 4)$

13) $\sqrt{5}(4 - 2\sqrt{5})$

14) $\sqrt{15}(\sqrt{10} + \sqrt{3})$

15) $\sqrt{10}(\sqrt{3} + \sqrt{5})$

16) $3\sqrt{3}(\sqrt{6} + \sqrt{2})$

17) $-3\sqrt{15}(4 + \sqrt{6})$

18) $2\sqrt{5}(\sqrt{3} + \sqrt{2})$

19) $\sqrt{3}(2\sqrt{6} + 3\sqrt{10})$

20) $-4\sqrt{15}(\sqrt{5} + \sqrt{3})$

21) $\sqrt{15}(5\sqrt{5} + \sqrt{3})$

22) $\sqrt{6}(2\sqrt{6} + \sqrt{2})$

Assignment

Date _____ Period _____

Simplify.

$$1) -\sqrt{15}(3 + \sqrt{10})$$

$$-3\sqrt{15} - 5\sqrt{6}$$

$$2) \sqrt{5}(5 - 3\sqrt{5})$$

$$5\sqrt{5} - 15$$

$$3) \sqrt{5}(\sqrt{3} + \sqrt{2})$$

$$\sqrt{15} + \sqrt{10}$$

$$4) -\sqrt{2}(2 + \sqrt{2})$$

$$-2\sqrt{2} - 2$$

$$5) -2\sqrt{15}(2 - 5\sqrt{3})$$

$$-4\sqrt{15} + 30\sqrt{5}$$

$$6) -\sqrt{2}(\sqrt{3} - 3\sqrt{10})$$

$$-\sqrt{6} + 6\sqrt{5}$$

$$7) 2\sqrt{5}(2 + 4\sqrt{10})$$

$$4\sqrt{5} + 40\sqrt{2}$$

$$8) \sqrt{15}(4\sqrt{6} + \sqrt{5})$$

$$12\sqrt{10} + 5\sqrt{3}$$

$$9) -4\sqrt{10}(-5\sqrt{2} + 2)$$

$$40\sqrt{5} - 8\sqrt{10}$$

$$10) 3\sqrt{2}(4 + \sqrt{2})$$

$$12\sqrt{2} + 6$$

$$11) \sqrt{15}(\sqrt{5} + \sqrt{6})$$

$$5\sqrt{3} + 3\sqrt{10}$$

$$12) 3\sqrt{10}(\sqrt{2} + 4)$$

$$6\sqrt{5} + 12\sqrt{10}$$

$$13) \sqrt{5}(4 - 2\sqrt{5})$$

$$4\sqrt{5} - 10$$

$$14) \sqrt{15}(\sqrt{10} + \sqrt{3})$$

$$5\sqrt{6} + 3\sqrt{5}$$

$$15) \sqrt{10}(\sqrt{3} + \sqrt{5})$$

$$\sqrt{30} + 5\sqrt{2}$$

$$16) 3\sqrt{3}(\sqrt{6} + \sqrt{2})$$

$$9\sqrt{2} + 3\sqrt{6}$$

$$17) -3\sqrt{15}(4 + \sqrt{6})$$

$$-12\sqrt{15} - 9\sqrt{10}$$

$$18) 2\sqrt{5}(\sqrt{3} + \sqrt{2})$$

$$2\sqrt{15} + 2\sqrt{10}$$

$$19) \sqrt{3}(2\sqrt{6} + 3\sqrt{10})$$

$$6\sqrt{2} + 3\sqrt{30}$$

$$20) -4\sqrt{15}(\sqrt{5} + \sqrt{3})$$

$$-20\sqrt{3} - 12\sqrt{5}$$

$$21) \sqrt{15}(5\sqrt{5} + \sqrt{3})$$

$$25\sqrt{3} + 3\sqrt{5}$$

$$22) \sqrt{6}(2\sqrt{6} + \sqrt{2})$$

$$12 + 2\sqrt{3}$$

Assignment

Date _____ Period _____

Simplify.

1) $-4\sqrt{5}(2 + 4\sqrt{2})$

2) $\sqrt{10}(\sqrt{3} + \sqrt{2})$

3) $\sqrt{6}(2\sqrt{2} + 4)$

4) $4\sqrt{10}(\sqrt{2} + \sqrt{10})$

5) $-4\sqrt{10}(\sqrt{5} + \sqrt{2})$

6) $\sqrt{3}(5\sqrt{5} + 3\sqrt{6})$

7) $-\sqrt{6}(2 + \sqrt{2})$

8) $\sqrt{2}(-5\sqrt{2} + 5\sqrt{6})$

9) $\sqrt{6}(\sqrt{6} + 5)$

10) $\sqrt{15}(4 - 2\sqrt{6})$

11) $-2\sqrt{5}(\sqrt{10} + 4)$

12) $4\sqrt{5}(\sqrt{5} + 3)$

13) $\sqrt{3}(-3\sqrt{6} + \sqrt{5})$

14) $-2\sqrt{6}(\sqrt{6} + 5)$

15) $\sqrt{15}(\sqrt{6} + 5\sqrt{5})$

16) $3\sqrt{5}(\sqrt{2} + 5)$

17) $4\sqrt{10}(\sqrt{3} + \sqrt{10})$

18) $-5\sqrt{15}(\sqrt{3} + 5)$

19) $\sqrt{3}(3\sqrt{10} + 4)$

20) $5\sqrt{6}(3 + \sqrt{6})$

21) $\sqrt{2}(\sqrt{6} + \sqrt{10})$

22) $-2\sqrt{10}(-4\sqrt{10} + 5\sqrt{2})$

Assignment

Date _____ Period _____

Simplify.

$$1) -4\sqrt{5}(2 + 4\sqrt{2})$$
$$-8\sqrt{5} - 16\sqrt{10}$$

$$2) \sqrt{10}(\sqrt{3} + \sqrt{2})$$
$$\sqrt{30} + 2\sqrt{5}$$

$$3) \sqrt{6}(2\sqrt{2} + 4)$$
$$4\sqrt{3} + 4\sqrt{6}$$

$$4) 4\sqrt{10}(\sqrt{2} + \sqrt{10})$$
$$8\sqrt{5} + 40$$

$$5) -4\sqrt{10}(\sqrt{5} + \sqrt{2})$$
$$-20\sqrt{2} - 8\sqrt{5}$$

$$6) \sqrt{3}(5\sqrt{5} + 3\sqrt{6})$$
$$5\sqrt{15} + 9\sqrt{2}$$

$$7) -\sqrt{6}(2 + \sqrt{2})$$
$$-2\sqrt{6} - 2\sqrt{3}$$

$$8) \sqrt{2}(-5\sqrt{2} + 5\sqrt{6})$$
$$-10 + 10\sqrt{3}$$

$$9) \sqrt{6}(\sqrt{6} + 5)$$
$$6 + 5\sqrt{6}$$

$$10) \sqrt{15}(4 - 2\sqrt{6})$$
$$4\sqrt{15} - 6\sqrt{10}$$

$$11) -2\sqrt{5}(\sqrt{10} + 4)$$
$$-10\sqrt{2} - 8\sqrt{5}$$

$$12) 4\sqrt{5}(\sqrt{5} + 3)$$
$$20 + 12\sqrt{5}$$

$$13) \sqrt{3}(-3\sqrt{6} + \sqrt{5})$$
$$-9\sqrt{2} + \sqrt{15}$$

$$14) -2\sqrt{6}(\sqrt{6} + 5)$$
$$-12 - 10\sqrt{6}$$

$$15) \sqrt{15}(\sqrt{6} + 5\sqrt{5})$$
$$3\sqrt{10} + 25\sqrt{3}$$

$$16) 3\sqrt{5}(\sqrt{2} + 5)$$
$$3\sqrt{10} + 15\sqrt{5}$$

$$17) 4\sqrt{10}(\sqrt{3} + \sqrt{10})$$
$$4\sqrt{30} + 40$$

$$18) -5\sqrt{15}(\sqrt{3} + 5)$$
$$-15\sqrt{5} - 25\sqrt{15}$$

$$19) \sqrt{3}(3\sqrt{10} + 4)$$
$$3\sqrt{30} + 4\sqrt{3}$$

$$20) 5\sqrt{6}(3 + \sqrt{6})$$
$$15\sqrt{6} + 30$$

$$21) \sqrt{2}(\sqrt{6} + \sqrt{10})$$
$$2\sqrt{3} + 2\sqrt{5}$$

$$22) -2\sqrt{10}(-4\sqrt{10} + 5\sqrt{2})$$
$$80 - 20\sqrt{5}$$

Assignment

Date _____ Period _____

Simplify.

1) $\sqrt{3}(5 + \sqrt{2})$

2) $\sqrt{15}(4 + \sqrt{6})$

3) $\sqrt{15}(-4\sqrt{6} + \sqrt{5})$

4) $-3\sqrt{15}(3 + 5\sqrt{3})$

5) $\sqrt{15}(3 + 2\sqrt{10})$

6) $\sqrt{10}(5 + \sqrt{5})$

7) $\sqrt{5}(4 - 4\sqrt{5})$

8) $\sqrt{2}(\sqrt{10} - 4\sqrt{2})$

9) $\sqrt{3}(\sqrt{3} - 4\sqrt{2})$

10) $\sqrt{5}(\sqrt{5} + \sqrt{2})$

11) $\sqrt{15}(-5\sqrt{6} + 2)$

12) $\sqrt{5}(\sqrt{5} + \sqrt{2})$

13) $2\sqrt{10}(-5\sqrt{2} + \sqrt{10})$

14) $5\sqrt{15}(\sqrt{6} + \sqrt{2})$

15) $\sqrt{6}(\sqrt{2} + \sqrt{3})$

16) $2\sqrt{6}(\sqrt{2} + 4)$

17) $\sqrt{15}(\sqrt{10} + 3\sqrt{6})$

18) $\sqrt{2}(2 + 5\sqrt{2})$

19) $\sqrt{5}(-5\sqrt{3} + \sqrt{5})$

20) $\sqrt{5}(\sqrt{10} + 5)$

21) $\sqrt{6}(\sqrt{3} + 2)$

22) $\sqrt{5}(-3\sqrt{3} + \sqrt{10})$

Assignment

Date _____ Period _____

Simplify.

$$1) \sqrt{3}(5 + \sqrt{2})$$
$$5\sqrt{3} + \sqrt{6}$$

$$2) \sqrt{15}(4 + \sqrt{6})$$
$$4\sqrt{15} + 3\sqrt{10}$$

$$3) \sqrt{15}(-4\sqrt{6} + \sqrt{5})$$
$$-12\sqrt{10} + 5\sqrt{3}$$

$$4) -3\sqrt{15}(3 + 5\sqrt{3})$$
$$-9\sqrt{15} - 45\sqrt{5}$$

$$5) \sqrt{15}(3 + 2\sqrt{10})$$
$$3\sqrt{15} + 10\sqrt{6}$$

$$6) \sqrt{10}(5 + \sqrt{5})$$
$$5\sqrt{10} + 5\sqrt{2}$$

$$7) \sqrt{5}(4 - 4\sqrt{5})$$
$$4\sqrt{5} - 20$$

$$8) \sqrt{2}(\sqrt{10} - 4\sqrt{2})$$
$$2\sqrt{5} - 8$$

$$9) \sqrt{3}(\sqrt{3} - 4\sqrt{2})$$
$$3 - 4\sqrt{6}$$

$$10) \sqrt{5}(\sqrt{5} + \sqrt{2})$$
$$5 + \sqrt{10}$$

$$11) \sqrt{15}(-5\sqrt{6} + 2)$$
$$-15\sqrt{10} + 2\sqrt{15}$$

$$12) \sqrt{5}(\sqrt{5} + \sqrt{2})$$
$$5 + \sqrt{10}$$

$$13) 2\sqrt{10}(-5\sqrt{2} + \sqrt{10})$$
$$-20\sqrt{5} + 20$$

$$14) 5\sqrt{15}(\sqrt{6} + \sqrt{2})$$
$$15\sqrt{10} + 5\sqrt{30}$$

$$15) \sqrt{6}(\sqrt{2} + \sqrt{3})$$
$$2\sqrt{3} + 3\sqrt{2}$$

$$16) 2\sqrt{6}(\sqrt{2} + 4)$$
$$4\sqrt{3} + 8\sqrt{6}$$

$$17) \sqrt{15}(\sqrt{10} + 3\sqrt{6})$$
$$5\sqrt{6} + 9\sqrt{10}$$

$$18) \sqrt{2}(2 + 5\sqrt{2})$$
$$2\sqrt{2} + 10$$

$$19) \sqrt{5}(-5\sqrt{3} + \sqrt{5})$$
$$-5\sqrt{15} + 5$$

$$20) \sqrt{5}(\sqrt{10} + 5)$$
$$5\sqrt{2} + 5\sqrt{5}$$

$$21) \sqrt{6}(\sqrt{3} + 2)$$
$$3\sqrt{2} + 2\sqrt{6}$$

$$22) \sqrt{5}(-3\sqrt{3} + \sqrt{10})$$
$$-3\sqrt{15} + 5\sqrt{2}$$

Assignment

Date _____ Period _____

Simplify.

1) $2\sqrt{6}(\sqrt{3} + \sqrt{5})$

2) $\sqrt{15}(3 + \sqrt{6})$

3) $\sqrt{10}(3 - 3\sqrt{10})$

4) $\sqrt{3}(\sqrt{3} + 2)$

5) $\sqrt{2}(-4\sqrt{2} + \sqrt{6})$

6) $\sqrt{10}(5 + 4\sqrt{2})$

7) $\sqrt{15}(3\sqrt{3} - 4\sqrt{10})$

8) $\sqrt{15}(-3\sqrt{10} + 2)$

9) $-3\sqrt{15}(2 + \sqrt{10})$

10) $\sqrt{5}(-3\sqrt{6} + \sqrt{5})$

11) $\sqrt{10}(3 + \sqrt{5})$

12) $-5\sqrt{2}(4 + \sqrt{6})$

13) $\sqrt{15}(4 + 3\sqrt{3})$

14) $5\sqrt{15}(-3\sqrt{10} + 3)$

15) $\sqrt{5}(\sqrt{2} + 5)$

16) $4\sqrt{3}(-3\sqrt{3} + 4)$

17) $4\sqrt{3}(2 - \sqrt{3})$

18) $\sqrt{10}(\sqrt{5} - \sqrt{6})$

19) $\sqrt{5}(\sqrt{5} + 5)$

20) $\sqrt{10}(-\sqrt{10} + 2)$

21) $\sqrt{2}(-5\sqrt{2} + \sqrt{6})$

22) $\sqrt{5}(\sqrt{10} + 4)$

Assignment

Date _____ Period _____

Simplify.

1) $2\sqrt{6}(\sqrt{3} + \sqrt{5})$

$6\sqrt{2} + 2\sqrt{30}$

2) $\sqrt{15}(3 + \sqrt{6})$

$3\sqrt{15} + 3\sqrt{10}$

3) $\sqrt{10}(3 - 3\sqrt{10})$

$3\sqrt{10} - 30$

4) $\sqrt{3}(\sqrt{3} + 2)$

$3 + 2\sqrt{3}$

5) $\sqrt{2}(-4\sqrt{2} + \sqrt{6})$

$-8 + 2\sqrt{3}$

6) $\sqrt{10}(5 + 4\sqrt{2})$

$5\sqrt{10} + 8\sqrt{5}$

7) $\sqrt{15}(3\sqrt{3} - 4\sqrt{10})$

$9\sqrt{5} - 20\sqrt{6}$

8) $\sqrt{15}(-3\sqrt{10} + 2)$

$-15\sqrt{6} + 2\sqrt{15}$

9) $-3\sqrt{15}(2 + \sqrt{10})$

$-6\sqrt{15} - 15\sqrt{6}$

10) $\sqrt{5}(-3\sqrt{6} + \sqrt{5})$

$-3\sqrt{30} + 5$

11) $\sqrt{10}(3 + \sqrt{5})$

$3\sqrt{10} + 5\sqrt{2}$

12) $-5\sqrt{2}(4 + \sqrt{6})$

$-20\sqrt{2} - 10\sqrt{3}$

13) $\sqrt{15}(4 + 3\sqrt{3})$

$4\sqrt{15} + 9\sqrt{5}$

14) $5\sqrt{15}(-3\sqrt{10} + 3)$

$-75\sqrt{6} + 15\sqrt{15}$

15) $\sqrt{5}(\sqrt{2} + 5)$

$\sqrt{10} + 5\sqrt{5}$

16) $4\sqrt{3}(-3\sqrt{3} + 4)$

$-36 + 16\sqrt{3}$

17) $4\sqrt{3}(2 - \sqrt{3})$

$8\sqrt{3} - 12$

18) $\sqrt{10}(\sqrt{5} - \sqrt{6})$

$5\sqrt{2} - 2\sqrt{15}$

19) $\sqrt{5}(\sqrt{5} + 5)$

$5 + 5\sqrt{5}$

20) $\sqrt{10}(-\sqrt{10} + 2)$

$-10 + 2\sqrt{10}$

21) $\sqrt{2}(-5\sqrt{2} + \sqrt{6})$

$-10 + 2\sqrt{3}$

22) $\sqrt{5}(\sqrt{10} + 4)$

$5\sqrt{2} + 4\sqrt{5}$

Assignment

Date _____ Period _____

Simplify.

1) $\sqrt{10}(\sqrt{10} + 4\sqrt{6})$

2) $-\sqrt{5}(-\sqrt{5} - 4\sqrt{6})$

3) $3\sqrt{15}(3\sqrt{6} + 3\sqrt{10})$

4) $\sqrt{6}(\sqrt{6} + \sqrt{10})$

5) $\sqrt{3}(\sqrt{6} + 2\sqrt{2})$

6) $\sqrt{6}(-\sqrt{3} + \sqrt{5})$

7) $5\sqrt{5}(4 + \sqrt{5})$

8) $\sqrt{3}(3 + \sqrt{2})$

9) $\sqrt{6}(3 + \sqrt{3})$

10) $2\sqrt{3}(\sqrt{5} - 4\sqrt{6})$

11) $\sqrt{10}(4\sqrt{5} + \sqrt{2})$

12) $3\sqrt{3}(\sqrt{6} + 4)$

13) $-4\sqrt{15}(\sqrt{2} - 3\sqrt{10})$

14) $3\sqrt{5}(\sqrt{5} + 5)$

15) $\sqrt{5}(\sqrt{3} + \sqrt{10})$

16) $\sqrt{10}(-\sqrt{2} + 5)$

17) $\sqrt{5}(-5\sqrt{10} + 4)$

18) $\sqrt{15}(3 + \sqrt{6})$

19) $\sqrt{6}(2 - 5\sqrt{6})$

20) $\sqrt{3}(3 - 3\sqrt{6})$

21) $\sqrt{3}(\sqrt{10} + \sqrt{3})$

22) $3\sqrt{3}(\sqrt{5} + 4)$

Assignment

Date _____ Period _____

Simplify.

1) $\sqrt{10}(\sqrt{10} + 4\sqrt{6})$

$10 + 8\sqrt{15}$

2) $-\sqrt{5}(-\sqrt{5} - 4\sqrt{6})$

$5 + 4\sqrt{30}$

3) $3\sqrt{15}(3\sqrt{6} + 3\sqrt{10})$

$27\sqrt{10} + 45\sqrt{6}$

4) $\sqrt{6}(\sqrt{6} + \sqrt{10})$

$6 + 2\sqrt{15}$

5) $\sqrt{3}(\sqrt{6} + 2\sqrt{2})$

$3\sqrt{2} + 2\sqrt{6}$

6) $\sqrt{6}(-\sqrt{3} + \sqrt{5})$

$-3\sqrt{2} + \sqrt{30}$

7) $5\sqrt{5}(4 + \sqrt{5})$

$20\sqrt{5} + 25$

8) $\sqrt{3}(3 + \sqrt{2})$

$3\sqrt{3} + \sqrt{6}$

9) $\sqrt{6}(3 + \sqrt{3})$

$3\sqrt{6} + 3\sqrt{2}$

10) $2\sqrt{3}(\sqrt{5} - 4\sqrt{6})$

$2\sqrt{15} - 24\sqrt{2}$

11) $\sqrt{10}(4\sqrt{5} + \sqrt{2})$

$20\sqrt{2} + 2\sqrt{5}$

12) $3\sqrt{3}(\sqrt{6} + 4)$

$9\sqrt{2} + 12\sqrt{3}$

13) $-4\sqrt{15}(\sqrt{2} - 3\sqrt{10})$

$-4\sqrt{30} + 60\sqrt{6}$

14) $3\sqrt{5}(\sqrt{5} + 5)$

$15 + 15\sqrt{5}$

15) $\sqrt{5}(\sqrt{3} + \sqrt{10})$

$\sqrt{15} + 5\sqrt{2}$

16) $\sqrt{10}(-\sqrt{2} + 5)$

$-2\sqrt{5} + 5\sqrt{10}$

17) $\sqrt{5}(-5\sqrt{10} + 4)$

$-25\sqrt{2} + 4\sqrt{5}$

18) $\sqrt{15}(3 + \sqrt{6})$

$3\sqrt{15} + 3\sqrt{10}$

19) $\sqrt{6}(2 - 5\sqrt{6})$

$2\sqrt{6} - 30$

20) $\sqrt{3}(3 - 3\sqrt{6})$

$3\sqrt{3} - 9\sqrt{2}$

21) $\sqrt{3}(\sqrt{10} + \sqrt{3})$

$\sqrt{30} + 3$

22) $3\sqrt{3}(\sqrt{5} + 4)$

$3\sqrt{15} + 12\sqrt{3}$

Assignment

Date _____ Period _____

Simplify.

1) $\sqrt{15}(\sqrt{10} + \sqrt{6})$

2) $3\sqrt{3}(\sqrt{10} - 2\sqrt{3})$

3) $5\sqrt{5}(4 + \sqrt{5})$

4) $5\sqrt{10}(\sqrt{10} + 5)$

5) $\sqrt{10}(\sqrt{10} + 4)$

6) $\sqrt{3}(2 + 4\sqrt{3})$

7) $-3\sqrt{15}(2 + \sqrt{10})$

8) $\sqrt{3}(3 + 3\sqrt{10})$

9) $\sqrt{5}(\sqrt{5} + 3)$

10) $5\sqrt{5}(2 + \sqrt{5})$

11) $\sqrt{5}(4\sqrt{6} - 3\sqrt{5})$

12) $2\sqrt{6}(2 + \sqrt{2})$

13) $\sqrt{3}(-5\sqrt{6} + 4)$

14) $3\sqrt{3}(\sqrt{5} + \sqrt{6})$

15) $\sqrt{5}(3\sqrt{5} + \sqrt{6})$

16) $\sqrt{2}(5 + \sqrt{2})$

17) $3\sqrt{15}(4 + 4\sqrt{3})$

18) $\sqrt{5}(5 + \sqrt{5})$

19) $\sqrt{5}(\sqrt{6} + 4)$

20) $\sqrt{6}(\sqrt{10} + 2\sqrt{2})$

21) $2\sqrt{2}(-3\sqrt{2} - 4\sqrt{3})$

22) $-\sqrt{15}(3 + \sqrt{5})$

Assignment

Date _____ Period _____

Simplify.

$$1) \sqrt{15}(\sqrt{10} + \sqrt{6})$$

$$5\sqrt{6} + 3\sqrt{10}$$

$$2) 3\sqrt{3}(\sqrt{10} - 2\sqrt{3})$$

$$3\sqrt{30} - 18$$

$$3) 5\sqrt{5}(4 + \sqrt{5})$$

$$20\sqrt{5} + 25$$

$$4) 5\sqrt{10}(\sqrt{10} + 5)$$

$$50 + 25\sqrt{10}$$

$$5) \sqrt{10}(\sqrt{10} + 4)$$

$$10 + 4\sqrt{10}$$

$$6) \sqrt{3}(2 + 4\sqrt{3})$$

$$2\sqrt{3} + 12$$

$$7) -3\sqrt{15}(2 + \sqrt{10})$$

$$-6\sqrt{15} - 15\sqrt{6}$$

$$8) \sqrt{3}(3 + 3\sqrt{10})$$

$$3\sqrt{3} + 3\sqrt{30}$$

$$9) \sqrt{5}(\sqrt{5} + 3)$$

$$5 + 3\sqrt{5}$$

$$10) 5\sqrt{5}(2 + \sqrt{5})$$

$$10\sqrt{5} + 25$$

$$11) \sqrt{5}(4\sqrt{6} - 3\sqrt{5})$$

$$4\sqrt{30} - 15$$

$$12) 2\sqrt{6}(2 + \sqrt{2})$$

$$4\sqrt{6} + 4\sqrt{3}$$

$$13) \sqrt{3}(-5\sqrt{6} + 4)$$

$$-15\sqrt{2} + 4\sqrt{3}$$

$$14) 3\sqrt{3}(\sqrt{5} + \sqrt{6})$$

$$3\sqrt{15} + 9\sqrt{2}$$

$$15) \sqrt{5}(3\sqrt{5} + \sqrt{6})$$

$$15 + \sqrt{30}$$

$$16) \sqrt{2}(5 + \sqrt{2})$$

$$5\sqrt{2} + 2$$

$$17) 3\sqrt{15}(4 + 4\sqrt{3})$$

$$12\sqrt{15} + 36\sqrt{5}$$

$$18) \sqrt{5}(5 + \sqrt{5})$$

$$5\sqrt{5} + 5$$

$$19) \sqrt{5}(\sqrt{6} + 4)$$

$$\sqrt{30} + 4\sqrt{5}$$

$$20) \sqrt{6}(\sqrt{10} + 2\sqrt{2})$$

$$2\sqrt{15} + 4\sqrt{3}$$

$$21) 2\sqrt{2}(-3\sqrt{2} - 4\sqrt{3})$$

$$-12 - 8\sqrt{6}$$

$$22) -\sqrt{15}(3 + \sqrt{5})$$

$$-3\sqrt{15} - 5\sqrt{3}$$

Assignment

Date _____ Period _____

Simplify.

1) $\sqrt{10}(\sqrt{5} + \sqrt{3})$

2) $\sqrt{5}(\sqrt{2} - 3\sqrt{10})$

3) $-2\sqrt{6}(3 + \sqrt{2})$

4) $\sqrt{5}(\sqrt{5} + 5\sqrt{6})$

5) $\sqrt{6}(\sqrt{2} + 5)$

6) $-3\sqrt{6}(4 + 3\sqrt{2})$

7) $-4\sqrt{6}(-3\sqrt{3} - 3\sqrt{2})$

8) $5\sqrt{15}(5\sqrt{10} + \sqrt{6})$

9) $-5\sqrt{10}(5 + \sqrt{2})$

10) $\sqrt{5}(-4\sqrt{2} + \sqrt{5})$

11) $\sqrt{6}(\sqrt{6} + 5)$

12) $\sqrt{15}(4 + \sqrt{3})$

13) $\sqrt{2}(\sqrt{6} - \sqrt{2})$

14) $-4\sqrt{10}(\sqrt{5} + \sqrt{2})$

15) $\sqrt{5}(\sqrt{10} + 2)$

16) $4\sqrt{2}(\sqrt{10} + \sqrt{2})$

17) $\sqrt{15}(\sqrt{6} + 3)$

18) $\sqrt{3}(3 + \sqrt{6})$

19) $\sqrt{5}(5 - \sqrt{6})$

20) $\sqrt{10}(\sqrt{2} + 3)$

21) $-3\sqrt{3}(\sqrt{10} - 2\sqrt{3})$

22) $4\sqrt{3}(\sqrt{5} + \sqrt{3})$

Assignment

Date _____ Period _____

Simplify.

$$1) \sqrt{10}(\sqrt{5} + \sqrt{3})$$
$$5\sqrt{2} + \sqrt{30}$$

$$2) \sqrt{5}(\sqrt{2} - 3\sqrt{10})$$
$$\sqrt{10} - 15\sqrt{2}$$

$$3) -2\sqrt{6}(3 + \sqrt{2})$$
$$-6\sqrt{6} - 4\sqrt{3}$$

$$4) \sqrt{5}(\sqrt{5} + 5\sqrt{6})$$
$$5 + 5\sqrt{30}$$

$$5) \sqrt{6}(\sqrt{2} + 5)$$
$$2\sqrt{3} + 5\sqrt{6}$$

$$6) -3\sqrt{6}(4 + 3\sqrt{2})$$
$$-12\sqrt{6} - 18\sqrt{3}$$

$$7) -4\sqrt{6}(-3\sqrt{3} - 3\sqrt{2})$$
$$36\sqrt{2} + 24\sqrt{3}$$

$$8) 5\sqrt{15}(5\sqrt{10} + \sqrt{6})$$
$$125\sqrt{6} + 15\sqrt{10}$$

$$9) -5\sqrt{10}(5 + \sqrt{2})$$
$$-25\sqrt{10} - 10\sqrt{5}$$

$$10) \sqrt{5}(-4\sqrt{2} + \sqrt{5})$$
$$-4\sqrt{10} + 5$$

$$11) \sqrt{6}(\sqrt{6} + 5)$$
$$6 + 5\sqrt{6}$$

$$12) \sqrt{15}(4 + \sqrt{3})$$
$$4\sqrt{15} + 3\sqrt{5}$$

$$13) \sqrt{2}(\sqrt{6} - \sqrt{2})$$
$$2\sqrt{3} - 2$$

$$14) -4\sqrt{10}(\sqrt{5} + \sqrt{2})$$
$$-20\sqrt{2} - 8\sqrt{5}$$

$$15) \sqrt{5}(\sqrt{10} + 2)$$
$$5\sqrt{2} + 2\sqrt{5}$$

$$16) 4\sqrt{2}(\sqrt{10} + \sqrt{2})$$
$$8\sqrt{5} + 8$$

$$17) \sqrt{15}(\sqrt{6} + 3)$$
$$3\sqrt{10} + 3\sqrt{15}$$

$$18) \sqrt{3}(3 + \sqrt{6})$$
$$3\sqrt{3} + 3\sqrt{2}$$

$$19) \sqrt{5}(5 - \sqrt{6})$$
$$5\sqrt{5} - \sqrt{30}$$

$$20) \sqrt{10}(\sqrt{2} + 3)$$
$$2\sqrt{5} + 3\sqrt{10}$$

$$21) -3\sqrt{3}(\sqrt{10} - 2\sqrt{3})$$
$$-3\sqrt{30} + 18$$

$$22) 4\sqrt{3}(\sqrt{5} + \sqrt{3})$$
$$4\sqrt{15} + 12$$

Assignment

Date _____ Period _____

Simplify.

1) $\sqrt{15}(\sqrt{10} + 4)$

2) $-3\sqrt{5}(-2\sqrt{5} + 5)$

3) $\sqrt{10}(2 + \sqrt{10})$

4) $\sqrt{6}(\sqrt{3} + 4)$

5) $\sqrt{3}(-3\sqrt{3} + 5)$

6) $\sqrt{3}(\sqrt{3} + 2)$

7) $5\sqrt{2}(\sqrt{2} + 2)$

8) $\sqrt{15}(4\sqrt{2} + 3\sqrt{3})$

9) $\sqrt{10}(3\sqrt{2} + 5)$

10) $\sqrt{15}(\sqrt{10} + \sqrt{3})$

11) $\sqrt{15}(\sqrt{2} - 3\sqrt{3})$

12) $2\sqrt{5}(4 - 5\sqrt{10})$

13) $\sqrt{10}(\sqrt{5} + 3)$

14) $\sqrt{10}(4 + 4\sqrt{5})$

15) $\sqrt{10}(3 + \sqrt{2})$

16) $\sqrt{10}(5 + \sqrt{10})$

17) $-\sqrt{5}(\sqrt{5} + 2\sqrt{2})$

18) $-2\sqrt{5}(\sqrt{5} + \sqrt{3})$

19) $\sqrt{6}(2\sqrt{6} + 4)$

20) $\sqrt{5}(4\sqrt{10} + 3)$

21) $\sqrt{5}(\sqrt{5} + \sqrt{6})$

22) $\sqrt{2}(\sqrt{2} + 5)$

Assignment

Date _____ Period _____

Simplify.

$$1) \sqrt{15}(\sqrt{10} + 4)$$

$$5\sqrt{6} + 4\sqrt{15}$$

$$2) -3\sqrt{5}(-2\sqrt{5} + 5)$$

$$30 - 15\sqrt{5}$$

$$3) \sqrt{10}(2 + \sqrt{10})$$

$$2\sqrt{10} + 10$$

$$4) \sqrt{6}(\sqrt{3} + 4)$$

$$3\sqrt{2} + 4\sqrt{6}$$

$$5) \sqrt{3}(-3\sqrt{3} + 5)$$

$$-9 + 5\sqrt{3}$$

$$6) \sqrt{3}(\sqrt{3} + 2)$$

$$3 + 2\sqrt{3}$$

$$7) 5\sqrt{2}(\sqrt{2} + 2)$$

$$10 + 10\sqrt{2}$$

$$8) \sqrt{15}(4\sqrt{2} + 3\sqrt{3})$$

$$4\sqrt{30} + 9\sqrt{5}$$

$$9) \sqrt{10}(3\sqrt{2} + 5)$$

$$6\sqrt{5} + 5\sqrt{10}$$

$$10) \sqrt{15}(\sqrt{10} + \sqrt{3})$$

$$5\sqrt{6} + 3\sqrt{5}$$

$$11) \sqrt{15}(\sqrt{2} - 3\sqrt{3})$$

$$\sqrt{30} - 9\sqrt{5}$$

$$12) 2\sqrt{5}(4 - 5\sqrt{10})$$

$$8\sqrt{5} - 50\sqrt{2}$$

$$13) \sqrt{10}(\sqrt{5} + 3)$$

$$5\sqrt{2} + 3\sqrt{10}$$

$$14) \sqrt{10}(4 + 4\sqrt{5})$$

$$4\sqrt{10} + 20\sqrt{2}$$

$$15) \sqrt{10}(3 + \sqrt{2})$$

$$3\sqrt{10} + 2\sqrt{5}$$

$$16) \sqrt{10}(5 + \sqrt{10})$$

$$5\sqrt{10} + 10$$

$$17) -\sqrt{5}(\sqrt{5} + 2\sqrt{2})$$

$$-5 - 2\sqrt{10}$$

$$18) -2\sqrt{5}(\sqrt{5} + \sqrt{3})$$

$$-10 - 2\sqrt{15}$$

$$19) \sqrt{6}(2\sqrt{6} + 4)$$

$$12 + 4\sqrt{6}$$

$$20) \sqrt{5}(4\sqrt{10} + 3)$$

$$20\sqrt{2} + 3\sqrt{5}$$

$$21) \sqrt{5}(\sqrt{5} + \sqrt{6})$$

$$5 + \sqrt{30}$$

$$22) \sqrt{2}(\sqrt{2} + 5)$$

$$2 + 5\sqrt{2}$$

Assignment

Date _____ Period _____

Simplify.

1) $2\sqrt{15}(5\sqrt{3} + \sqrt{5})$

2) $3\sqrt{2}(-\sqrt{3} + \sqrt{2})$

3) $-4\sqrt{5}(\sqrt{10} + 4\sqrt{6})$

4) $\sqrt{15}(\sqrt{6} - 2\sqrt{5})$

5) $-3\sqrt{3}(2 - 5\sqrt{3})$

6) $\sqrt{5}(4\sqrt{10} + \sqrt{6})$

7) $5\sqrt{6}(3 + 2\sqrt{2})$

8) $\sqrt{5}(4 + 5\sqrt{5})$

9) $-2\sqrt{10}(\sqrt{2} + \sqrt{6})$

10) $2\sqrt{3}(3 + \sqrt{3})$

11) $\sqrt{10}(3 + \sqrt{10})$

12) $3\sqrt{15}(2 + \sqrt{3})$

13) $\sqrt{6}(\sqrt{6} + 4)$

14) $\sqrt{15}(2\sqrt{3} + 4)$

15) $-3\sqrt{3}(\sqrt{6} + 4)$

16) $\sqrt{15}(4 + \sqrt{6})$

17) $\sqrt{6}(4 + \sqrt{2})$

18) $\sqrt{3}(-3\sqrt{2} + 5)$

19) $-3\sqrt{5}(-5\sqrt{10} + \sqrt{2})$

20) $\sqrt{15}(\sqrt{3} + 3)$

21) $\sqrt{5}(5\sqrt{3} + \sqrt{10})$

22) $\sqrt{5}(\sqrt{6} + \sqrt{5})$

Assignment

Date _____ Period _____

Simplify.

$$1) 2\sqrt{15}(5\sqrt{3} + \sqrt{5})$$

$$30\sqrt{5} + 10\sqrt{3}$$

$$2) 3\sqrt{2}(-\sqrt{3} + \sqrt{2})$$

$$-3\sqrt{6} + 6$$

$$3) -4\sqrt{5}(\sqrt{10} + 4\sqrt{6})$$

$$-20\sqrt{2} - 16\sqrt{30}$$

$$4) \sqrt{15}(\sqrt{6} - 2\sqrt{5})$$

$$3\sqrt{10} - 10\sqrt{3}$$

$$5) -3\sqrt{3}(2 - 5\sqrt{3})$$

$$-6\sqrt{3} + 45$$

$$6) \sqrt{5}(4\sqrt{10} + \sqrt{6})$$

$$20\sqrt{2} + \sqrt{30}$$

$$7) 5\sqrt{6}(3 + 2\sqrt{2})$$

$$15\sqrt{6} + 20\sqrt{3}$$

$$8) \sqrt{5}(4 + 5\sqrt{5})$$

$$4\sqrt{5} + 25$$

$$9) -2\sqrt{10}(\sqrt{2} + \sqrt{6})$$

$$-4\sqrt{5} - 4\sqrt{15}$$

$$10) 2\sqrt{3}(3 + \sqrt{3})$$

$$6\sqrt{3} + 6$$

$$11) \sqrt{10}(3 + \sqrt{10})$$

$$3\sqrt{10} + 10$$

$$12) 3\sqrt{15}(2 + \sqrt{3})$$

$$6\sqrt{15} + 9\sqrt{5}$$

$$13) \sqrt{6}(\sqrt{6} + 4)$$

$$6 + 4\sqrt{6}$$

$$14) \sqrt{15}(2\sqrt{3} + 4)$$

$$6\sqrt{5} + 4\sqrt{15}$$

$$15) -3\sqrt{3}(\sqrt{6} + 4)$$

$$-9\sqrt{2} - 12\sqrt{3}$$

$$16) \sqrt{15}(4 + \sqrt{6})$$

$$4\sqrt{15} + 3\sqrt{10}$$

$$17) \sqrt{6}(4 + \sqrt{2})$$

$$4\sqrt{6} + 2\sqrt{3}$$

$$18) \sqrt{3}(-3\sqrt{2} + 5)$$

$$-3\sqrt{6} + 5\sqrt{3}$$

$$19) -3\sqrt{5}(-5\sqrt{10} + \sqrt{2})$$

$$75\sqrt{2} - 3\sqrt{10}$$

$$20) \sqrt{15}(\sqrt{3} + 3)$$

$$3\sqrt{5} + 3\sqrt{15}$$

$$21) \sqrt{5}(5\sqrt{3} + \sqrt{10})$$

$$5\sqrt{15} + 5\sqrt{2}$$

$$22) \sqrt{5}(\sqrt{6} + \sqrt{5})$$

$$\sqrt{30} + 5$$

Assignment

Simplify.

1) $\sqrt{6}(4\sqrt{10} + \sqrt{6})$

2) $\sqrt{5}(-\sqrt{5} + 4)$

3) $2\sqrt{5}(-4\sqrt{5} + \sqrt{3})$

4) $\sqrt{5}(\sqrt{3} - 2\sqrt{10})$

5) $4\sqrt{3}(5 + \sqrt{6})$

6) $4\sqrt{3}(-5\sqrt{6} + 5)$

7) $\sqrt{15}(\sqrt{10} + 3)$

8) $\sqrt{15}(-3\sqrt{10} + \sqrt{3})$

9) $\sqrt{5}(\sqrt{10} + \sqrt{6})$

10) $\sqrt{3}(\sqrt{3} + 4)$

11) $\sqrt{10}(5 + 2\sqrt{2})$

12) $\sqrt{15}(5\sqrt{5} - 4\sqrt{3})$

13) $2\sqrt{15}(\sqrt{5} + 3\sqrt{6})$

14) $4\sqrt{15}(4\sqrt{2} + \sqrt{6})$

15) $\sqrt{15}(-\sqrt{5} + 4\sqrt{3})$

16) $\sqrt{15}(\sqrt{2} - 4\sqrt{3})$

17) $5\sqrt{6}(3 - \sqrt{2})$

18) $2\sqrt{5}(\sqrt{3} - 4\sqrt{10})$

19) $\sqrt{6}(\sqrt{10} + \sqrt{3})$

20) $-5\sqrt{5}(5 + 5\sqrt{3})$

21) $\sqrt{15}(5\sqrt{10} + 4)$

22) $-\sqrt{6}(\sqrt{2} + 3)$

Assignment

Simplify.

1) $\sqrt{6}(4\sqrt{10} + \sqrt{6})$

$8\sqrt{15} + 6$

2) $\sqrt{5}(-\sqrt{5} + 4)$

$-5 + 4\sqrt{5}$

3) $2\sqrt{5}(-4\sqrt{5} + \sqrt{3})$

$-40 + 2\sqrt{15}$

4) $\sqrt{5}(\sqrt{3} - 2\sqrt{10})$

$\sqrt{15} - 10\sqrt{2}$

5) $4\sqrt{3}(5 + \sqrt{6})$

$20\sqrt{3} + 12\sqrt{2}$

6) $4\sqrt{3}(-5\sqrt{6} + 5)$

$-60\sqrt{2} + 20\sqrt{3}$

7) $\sqrt{15}(\sqrt{10} + 3)$

$5\sqrt{6} + 3\sqrt{15}$

8) $\sqrt{15}(-3\sqrt{10} + \sqrt{3})$

$-15\sqrt{6} + 3\sqrt{5}$

9) $\sqrt{5}(\sqrt{10} + \sqrt{6})$

$5\sqrt{2} + \sqrt{30}$

10) $\sqrt{3}(\sqrt{3} + 4)$

$3 + 4\sqrt{3}$

11) $\sqrt{10}(5 + 2\sqrt{2})$

$5\sqrt{10} + 4\sqrt{5}$

12) $\sqrt{15}(5\sqrt{5} - 4\sqrt{3})$

$25\sqrt{3} - 12\sqrt{5}$

13) $2\sqrt{15}(\sqrt{5} + 3\sqrt{6})$

$10\sqrt{3} + 18\sqrt{10}$

14) $4\sqrt{15}(4\sqrt{2} + \sqrt{6})$

$16\sqrt{30} + 12\sqrt{10}$

15) $\sqrt{15}(-\sqrt{5} + 4\sqrt{3})$

$-5\sqrt{3} + 12\sqrt{5}$

16) $\sqrt{15}(\sqrt{2} - 4\sqrt{3})$

$\sqrt{30} - 12\sqrt{5}$

17) $5\sqrt{6}(3 - \sqrt{2})$

$15\sqrt{6} - 10\sqrt{3}$

18) $2\sqrt{5}(\sqrt{3} - 4\sqrt{10})$

$2\sqrt{15} - 40\sqrt{2}$

19) $\sqrt{6}(\sqrt{10} + \sqrt{3})$

$2\sqrt{15} + 3\sqrt{2}$

20) $-5\sqrt{5}(5 + 5\sqrt{3})$

$-25\sqrt{5} - 25\sqrt{15}$

21) $\sqrt{15}(5\sqrt{10} + 4)$

$25\sqrt{6} + 4\sqrt{15}$

22) $-\sqrt{6}(\sqrt{2} + 3)$

$-2\sqrt{3} - 3\sqrt{6}$