Simplifying Surds GREEN

Write the following in simplest surd form:

1. √18 2. √56

3. √96 4. √60

Write these as a single surd then evaluate:

5. √27 x √2

6. √6 x √8 x √3

7. √320

√5

8. √30 x √12

√2 x √5

Expand and simplify:

9. (5 + √3)(6 + √3)

10. (7 + √5)(7 - √5)

11. (7 - √2)(4 - 3√2)

12. (6 + 3√3)(6 - 3√3)

Simplifying Surds AMBER

Write the following in simplest surd form:

1. √18 2. √56

= √9 x √2

=

3. √96 4. √60

Write these as a single surd then evaluate:

5. √27 x √2

= √54

=

6. √6 x √8 x √3

7. √320

√5

= √64

=

8. √30 x √12

√2 x √5

Expand and simplify:

9. (5 + √3)(6 + √3) **FOIL**

= 30 + 5√3 + 6√3 + √9

=

10. (7 + √5)(7 - √5)

11. (7 - √2)(4 - 3√2)

12. (6 + 3√3)(6 - 3√3)

Simplifying Surds RED

Write the following in simplest surd form:

1. √18 2. √56

= √9 x √2 = √4 x √14

= =

3. √96 4. √60

Write these as a single surd then evaluate:

5. √27 x √2

= √54

= √9 x √6

=

6. √6 x √8 x √3

7. √320

√5

= √64

=

8. √30 x √12

√2 x √5

Expand and simplify:

9. (5 + √3)(6 + √3) **FOIL**

= 30 + 5√3 + 6√3 + √9

= 30 + 11√3 + 3

= 33 + 11√3

10. (7 + √5)(7 - √5) **FOIL**

= 49 - 7√5 + 7√5 - √25

=

11. (7 - √2)(4 - 3√2)

12. (6 + 3√3)(6 - 3√3)