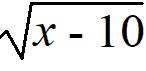
***College Algebra, 5e* (Young)**

**Chapter 1 Equations and Inequalities**

1.4 Other Types of Equations

1) Solve the radical equation.

 = 9

A) {19}

B) {71}

C) {10 + square root of (9)}

D) {91}

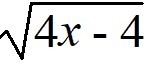
Answer: D

Diff: 2 Var: 1

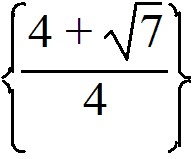
Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve radical equations.

2) Solve the radical equation.

 = 7

A) {11/4}

B) 

C) {53/4}

D) {45/4}

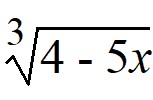
Answer: C

Diff: 2 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve radical equations.

3) Solve the radical equation.

 = -3

A) {31/5}

B) {-31/5}

C) {5/5}

D) {-5/5}

Answer: A

Diff: 2 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve radical equations.

4) Solve the radical equation.

*y* = 10square root of (y)

A) {0}

B) {10}

C) {100}

D) {0, 100}

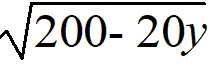
Answer: D

Diff: 3 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve radical equations.

5) Solve the radical equation.

 = *y* - 10

A) {10}

B) {10, -10}

C) {0}

D) {4.8}

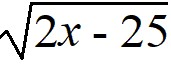
Answer: A

Diff: 3 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve equations that are quadratic in form.

6) Solve the radical equation.

*x* = 5

A) {25}

B) {-25, 25}

C) {-25}

D) {-5, 5}

Answer: A

Diff: 3 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve equations that are quadratic in form.

7) Introduce a *u* - substitution that transforms the equation to quadratic form. Do not solve.

3(x) with superscript (4) - 9(x) with superscript (2) - 13 = 0

A) *u* = (x) with superscript (2)

B) *u* = *x*

C) *u* = (x) with superscript (4)

D) *u* = (x) with superscript (3)

Answer: A

Diff: 3 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve equations that are factorable.; Solve equations that are quadratic in form.

8) Introduce a *u* - substitution that transforms the equation to quadratic form. Do not solve.

5(x) with superscript (-8) - 11(x) with superscript (-4) + 18 = 0

A) *u* = (x) with superscript (-8)

B) *u* = (x) with superscript (-4)

C) *u* = (x) with superscript (4)

D) *u* = (x) with superscript (8)

Answer: B

Diff: 1 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve equations that are factorable.; Solve equations that are quadratic in form.

9) Introduce a *u* - substitution that transforms the equation to quadratic form. Do not solve.

5*x* + 16 - 15 = 0

A) *u* = *x*

B) *u* = 

C) *u* = 

D) *u* = 1/*x*

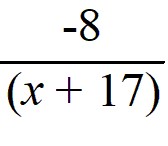
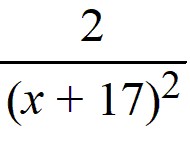
Answer: B

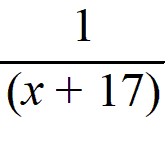
Diff: 1 Var: 1

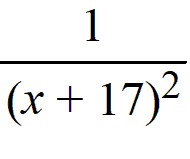
Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve equations that are factorable.; Solve equations that are quadratic in form.

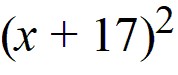
10) Introduce a *u* - substitution that transforms the equation to quadratic form. Do not solve.

2 +  -  = 0

A) *u* = 

B) *u* = 

C) *u* = *x* + 17

D) *u =* 

Answer: A

Diff: 2 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve equations that are quadratic in form.

11) Introduce a *u* - substitution that transforms the equation to quadratic form. Do not solve.

-6 - 16 + 2 = 0

A) *u* = *t*

B) *u* = 

C) *u* = 

D) *u* = (t) with superscript (2)

Answer: C

Diff: 2 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve equations that are quadratic in form.

12) Solve the equation by introducing a substitution.

1296(x) with superscript (4) - 72(x) with superscript (2) + 1 = 0

A) {-1/36, 1/36}

B) {1/36}

C) {-1/6, 1/6}

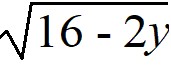
D) {1/6}

Answer: C

Diff: 3 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve equations that are quadratic in form.

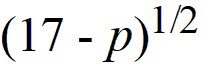
13) Solve the radical equation  = 8.

Answer: {-24}

Diff: 2 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve radical equations.

14) Solve the radical equation 8 = .

Answer: {-47}

Diff: 2 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve radical equations.

15) Solve the equation by introducing a substitution.

(x) with superscript (4) - 11(x) with superscript (2) + 30 = 0

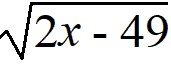
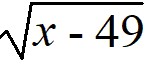
Answer: {±square root of (5), ±square root of (6)}

Diff: 3 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: FOIL; Solve equations that are factorable.; Solve equations that are quadratic in form.

16) Solve the radical equation for the given variable.

 -  = 7

A) {49, 245}

B) {105}

C) {7}

D) No solution

Answer: A

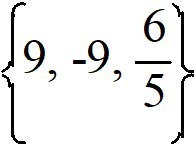
Diff: 2 Var: 1

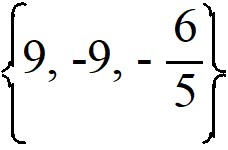
Chapter/Section: Ch 01, Sec 04

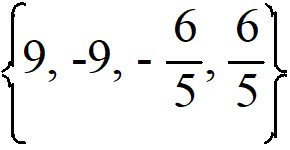
Learning Objective: Solve radical equations.

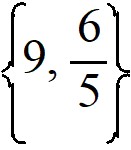
17) Solve by factoring.

5(x) with superscript (3) - 6(x) with superscript (2) - 405*x* + 486 = 0

A) 

B) 

C) 

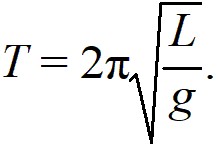
D) 

Answer: A

Diff: 2 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve equations that are factorable.

18) The period (*T*) of a pendulum is related to the length (*L*) of the pendulum and acceleration due tot he gravity (*g*) by the formula ** If the gravity is 9.8  and the period is 10 second, find the approximate length of the pendulum. Round to the nearest centimeter. (Note: 100 cm = 1 m)

A) 2482 cm

B) 241,805 cm

C) 635 cm

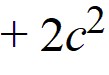
D) 1560 cm

Answer: A

Diff: 1 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve radical equations.

19) Solve (c) with superscript (3)  - 3*c* = 0 for *c*.

A) {0, 1, -3}

B) {0, -1, 3}

C) {1, -3}

D) no solution

Answer: A

Diff: 2 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve equations that are factorable.

20) Solve (x) with superscript (3) + (x) with superscript (2) - 100*x* - 100 = 0 for *x*.

A) {1,-10, 10}

B) {100, -100}

C) {-1, -10, 10}

D) {-100}

Answer: C

Diff: 2 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve equations that are factorable.

21) Solve (a) with superscript (3) - 5(a) with superscript (2) - 6*a* = 0 for *a*.

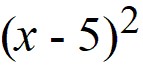
Answer: {0, 6, -1}

Diff: 2 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve equations that are factorable.

22) Solve the equation by introducing a substitution.

2 + 10(*x* - 5) + 12 = 0

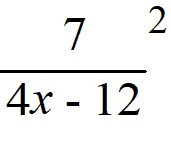
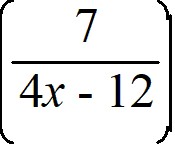
Answer: {7, 8}

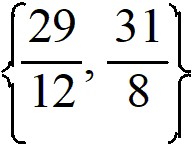
Diff: 3 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve equations that are quadratic in form.

23) Solve the equation by introducing a substitution.

 +  - 6 = 0

Answer: 

Diff: 3 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve equations that are quadratic in form.

24) Solve the equation by introducing a substitution.

3 + 21 = -36

Answer: {-2,187, -16,384}

Diff: 3 Var: 1

Chapter/Section: Ch 01, Sec 04

Learning Objective: Solve equations that are quadratic in form.

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