

M114 Skills Test

More Practice Problems

1. $\frac{acx}{3} + \frac{4c}{5} = \frac{2acx}{3}$; solve for x

2. $5 - \frac{2-z}{3} = \frac{z+3}{8}$

3. $\sqrt{3x+19} - 3x = -1$

4. $\frac{x+3}{x^2-x} - \frac{8}{x^2-1} = 0$

5. $\sqrt{x-3} + 5 = x$

6. $\frac{y-1}{y^2-9} + \frac{y+3}{3-y} = \frac{3y+5}{y+3}$

7. $3[x - (x+2)^2 - 4x] = 15$

8. $\frac{acx}{3} + \frac{4c}{5} = \frac{2ax}{3}$; solve for c

9. $\frac{1}{2x+2} = \frac{4}{3x} - 1$

10. $2(3x-7) - (6-x) = 4 - (6-x)$

11. $(3x-1)^2 - 121 = 0$

12. $\sqrt{x+4} + \sqrt{x-1} = 5$

13. $x(2x+1) = 3$

14. $V = C\left(1 - \frac{n}{N}\right)$; solve for N

15. $\frac{5-(2x-10)}{35} = 1$

16. $x - 4\sqrt{x} + 3 = 0$

17. $A = \frac{c}{3}(d+b)$; solve for b

18. $xr - 12 = yr + 7$; solve for r

19. $2(r-4) = \sqrt{4r-16}$

20. $1 + \frac{2}{3m} + \frac{1}{2m} = \frac{13}{6m}$

21. $(x+1)^2 = 3$

22. $3x+3 = \frac{5x+5}{x}$

23. $\frac{c}{c+4} = \frac{2}{3c} - \frac{4}{c+4}$

24. $0.25x - 0.15 = 0.2x + 0.05$

25. $\frac{3}{x+1} - \frac{2}{1-x} = \frac{5}{2}$

26. $\sqrt{y+1} + \sqrt{7y+4} = 3$

27. $m(h-4) = 2h+8$; solve for h

28. $-2(x-4)^2 + 3 = 17$

Solutions

$$1. x = \frac{12}{5a}$$

$$2. z = -19$$

$$3. x = 2$$

$$4. x = 3$$

$$5. x = 7$$

$$6. y = -\frac{5}{4} \text{ or } y = 1$$

$$7. x = \frac{-7 \pm \sqrt{13}}{2}$$

$$8. c = \frac{10ax}{5ax + 12}$$

$$9. x = \frac{1 \pm \sqrt{193}}{-12}$$

$$10. x = 3$$

$$11. x = -\frac{10}{3} \text{ or } x = 4$$

$$12. x = 5$$

$$13. x = -\frac{3}{2} \text{ or } x = 1$$

$$14. N = \frac{n}{1 - \frac{v}{c}} = \frac{cn}{c - v}$$

$$15. x = -10$$

$$16. x = 9 \text{ or } x = 1$$

$$17. b = \frac{3A}{c} - d$$

$$18. r = \frac{19}{x - y}$$

$$19. r = 4 \text{ or } r = 5$$

$$20. m = 1$$

$$21. x = -1 \pm \sqrt{3}$$

$$22. x = \frac{5}{3} \text{ or } x = -1$$

$$23. c = \frac{2}{3}$$

$$24. x = 4$$

$$25. x = \frac{10 \pm \sqrt{160}}{10}$$

$$26. y = 3$$

$$27. h = \frac{4m + 8}{m - 2}$$

$$28. \text{no solution}$$

Tutoring Center

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