Name: _____ Parent Signature: _____ Score

Homeroom: _____ Date: _____

Pre-Algebra CHAPTER 7 Test
PRACTICE 2

Solve. (2pts each)

Answers

1) $11a - 13 = 72.8$

$+13 \quad +13$

$11a = 85.8$

$\div 11 \quad \div 11$

$a = 7.8$

1) $a = 7.8$

2) $\frac{m}{4} + 6 = 29$

$-6 \quad -6$

$\frac{m}{4} = 23$

$\times 4 \quad \times 4$

$m = 92$

2) $m = 92$

3) $-123 - c = -192$

$+123 \quad +123$

$-c$ means $-1 \cdot c$

$-c = -69$

$\div -1 \quad \div -1$

$c = 69$

3) $c = 69$

4) $2(6d + 5) = 38.8$

$12d + 10 = 38.8$

$-10 = -10$

$12d = 28.8$

$\div 12 \quad \div 12$

$d = 2.4$

4) $d = 2.4$

Solve. (2pts each)

5) $9(e - 7) = -30.6$

$9e - 63 = -30.6$

$+63 \quad +63$

$9e = 32.4$

$e = 3.6$

5) $e = 3.6$

6) $0.5(7f + 2) = 267$

$3.5f + 1 = 267$

$-1 \quad -1$

$3.5f = 266$

$\div 3.5 \quad \div 3.5$

$f = 76$

6) $f = 76$

Solve. (3pts each)

7) $\frac{1}{3}(g + 9) = 3\frac{7}{24}$

$\frac{1}{3}g + 3 = 3\frac{7}{24}$

$-3 \quad -3$

$\frac{1}{3}g = \frac{7}{24} \div \frac{1}{3} = \frac{7}{\cancel{24}_{8}} \times \frac{\cancel{3}^{1}}{1} = \frac{21}{24} = \frac{7}{8}$

$\div \frac{1}{3}$

$g = \frac{7}{8}$

7) $g = \frac{7}{8}$

8) $\frac{2}{7}(h - 2) = 3\frac{4}{7}$

$\frac{2}{7}h - \frac{4}{7} = 3\frac{4}{7}$

$+\frac{4}{7} \quad +\frac{4}{7}$

$\frac{2}{7}h = 4\frac{1}{7} \div \frac{2}{7}$

$\div \frac{2}{7}$

$\frac{29}{\cancel{14}_{7}} \times \frac{\cancel{7}^{1}}{2} = \frac{29}{2} = 14\frac{1}{2}$

8) $h = 14\frac{1}{2}$

Solve. (3pts each)

9) $\frac{4}{5}(m-5)=12$

9) $m = 20$

$\frac{4}{5}m - 4 = 12$

$+4 \quad +4$

$\frac{4}{5}m = 16 \div \frac{4}{5} = \frac{\overset{4}{\cancel{16}}}{1} \times \frac{5}{\cancel{4}_1} = 20$

$\div \frac{4}{5}$

$m = 20$

10) On Tuesday Sarah bought five hats. On Wednesday she gave half of all the hats she had to charity. On Thursday she had 17 hats left. How many hats did she have on ~~Thursday~~ MONDAY?

10) 29 hats

$\frac{x+5}{2} = 17$ $\times 2$ $\times 2$

$x + 5 = 34$

$-5 \quad -5$

$x = 29$

11) Together Mrs. B, Mr. T and Miss S have 285 tests to grade. Mrs. B has *n* tests. Mr. T has one more than Mrs. B. Miss S has one more than Mr. T. Write an equation and solve to find out how many tests Mrs. B has to grade.

11) $n = 94$

$(n) + (n+1) + (n+2) = 285$

$3n + 3 = 285$

$-3 \quad -3$

$3n = 282$

$\div 3 \quad \div 3$

$n = 94$

12) Dwayne is taking an art class. He bought some drawing pencils for \$0.97 each and 1 sketchpad for \$5.95. He paid \$11.77. Write an equation and solve to find out how many pencils Dwayne bought.

12) 6 pencils

$0.97p + 5.95 = 11.77$

$-5.95 \quad -5.95$

$0.97p = 5.82$

$\div 0.97 \quad \div 0.97$

$p = 6$

Solve. (3pts each)

13) $n - 5 = 5n + 18 - 2n$

$n - 5 = 3n + 18$

$-n \quad -n$

$-5 = 2n + 18$

$-18 \quad -18$

$-23 = 2n$

$\div 2 \quad \div 2$

$-11.5 = n$

13) $n = -11.5$

14) $5m + 72 = 6(2m - 5) + 4$

$12m - 30$

$5m + 72 = 12m - 30 + 4$

$5m + 72 = 12m - 26$

$-5m \quad -5m$

$72 = 7m - 26$

$+26 \quad +26$

$98 = 7m$

$\div 7 \quad \div 7$

$14 = m$

14) $m = 14$

15) $3(x + 6) = 4(x - 9)$

$3x + 18 = 4x - 36$

$-3x \quad -3x$

$18 = x - 36$

$+36 \quad +36$

$54 = x$

15) $x = 54$

Solve the inequalities. Graph the inequality. (2pts each)

16) $-\frac{2}{5}x - 6 < 4$

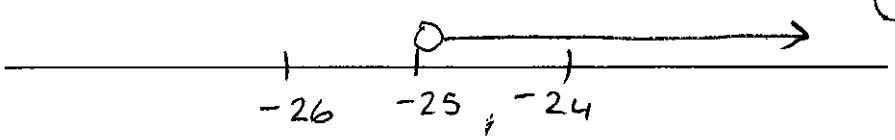
$+6 \quad +6$

$-\frac{2}{5}x < 10$

$\div -\frac{2}{5} \quad \div -\frac{2}{5}$

$x > \frac{10}{1} \div \frac{-2}{5} = \frac{10}{1} \times \frac{-5}{2} = -\frac{25}{1}$

$x > -25$



16) $x > -25$

Solve the inequalities. Graph the inequality. (2pts each)

17) $19 + 8 \leq 6 + 7x$

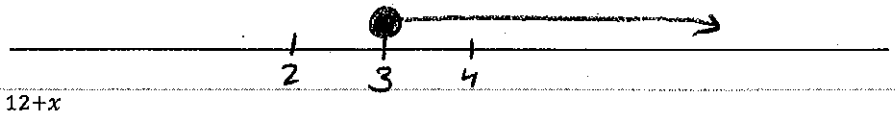
$27 \leq 6 + 7x$

$-6 \quad -6$

$21 \leq 7x$

$\div 7 \quad \div 7$

$3 \leq x$ or $x \geq 3$



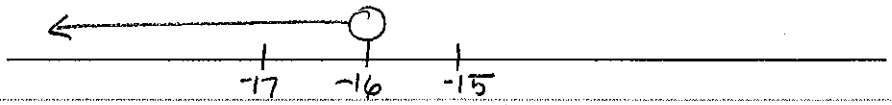
17) $x \geq 3$

18) $\frac{-1}{\times 4} > \frac{12+x}{4} \times 4$

$-4 > 12 + x$

$-12 \quad -12$

$-16 > x$ or $x < -16$



18) $x < -16$

Solve for the variable bolded. (2pts each)

19) $2m = \frac{\mathbf{a} + 6z}{5}$ $\times 5 \quad \times 5$

$10m = a + 6z$

$-6z \quad -6z$

$10m - 6z = a$

19) $a = 10m - 6z$

20) $3y + 7 = z$

$-7 \quad -7$

$\frac{3y}{\div 3} = \frac{z-7}{3}$

$y = \frac{z-7}{3}$

20) $y = \frac{z-7}{3}$

21) $v = \frac{u}{6} + 9$

$-9 \quad -9$

$v - 9 = \frac{u}{6} \times 6$

$6(v-9) = u$ or $u = 6v - 54$

21) $u = 6(v-9)$ or $u = 6v - 54$