Name: SAMPLE Date: _____

BLUE Chapter 1 Practice 1

Solve the equation. (1pt each)

1) $-26d = -364$

$\div -26 \mid \div -26$

$d = 14$

2) $x - \frac{1}{3} = \frac{2}{5}$

$+\frac{1}{3} \mid +\frac{1}{3}$

$\frac{2}{5} \times \frac{3}{3} = \frac{6}{15}$

$\frac{1}{3} \times \frac{5}{5} = \frac{5}{15}$

$\frac{11}{15}$

Solve the equation. (2pts each)

3) $2d - 15 = 3$

$+15 \mid +15$

$2d = 18$

$\div 2 \mid \div 2$

$d = 9$

4) $\frac{3}{5}w - \frac{1}{5}w + 10 = 4$

$\frac{2}{5}w + 10 = 4$

$-10 \mid -10$

$\frac{2}{5}w = -6$

$\div \frac{2}{5} \mid \div \frac{2}{5}$

$\frac{-6}{1} \div \frac{2}{5}$

$\frac{-\cancel{6}^{-3}}{1} \times \frac{5}{\cancel{2}_{1}} = -15$

5) $4(3 - 6a) = 36$

$12 - 24a = 36$

$-12 \mid -12$

$-24a = 24$

$\div -24 \mid \div -24$

$a = -1$

Answers

1) $d = 14$

2) $x = \frac{11}{15}$

3) $d = 9$

4) $w = -15$

5) $a = -1$

Solve the equation. (2pts each)

6) $4(2g - 3) = 5(g - 2)$

$8g - 12 = 5g - 10$

$-5g \quad | \quad -5g$

$3g - 12 = -10$

$+12 \quad | \quad +12$

$3g = 2$

$\div 3 \quad | \quad \div 3$

$g = \frac{2}{3}$

6) $g = \frac{2}{3}$

7) $6r - 8 = 8 + 6r$

$-6r \quad | \quad -6r$

$-8 = 8$

7) NO SOLUTION

8) $\frac{2}{3}y + 6 = \frac{2}{3}(y + 9)$

$\frac{3}{1} \times \frac{2}{3}$

$\frac{2}{3}y + 6 = \frac{2}{3}y + 6$

$-\frac{2}{3}y \quad | \quad -\frac{2}{3}y$

$6 = 6$

8) INFINITE SOLUTIONS

9) $0.4(15p + 6) = 1.5(4p + 1.6)$

$6p + 2.4 = 6p + 2.4$

9) INFINITE SOLUTIONS

10) $9n - 4 + n = 5 + 10n$

$10n - 4 = 5 + 10n$

$-10n \quad | \quad -10n$

$-4 = 5$

10 NO SOLUTION

REARRANGE THE FORMULA. Solve for y. (2pts each)

11) $2\pi = 5x - 3y$

$-5x \mid -5x$

$2\pi - 5x = -3y$

$\div -3 \mid \div -3$

$-\frac{2}{3}\pi + \frac{5}{3}x = y$

Answer: $y = -\frac{2}{3}\pi + 1\frac{2}{3}x$

12) $2.4x - 1.5y = 3$

$-2.4x \mid -2.4x$

$-1.5y = 3 - 2.4x$

$\div -1.5 \mid \div -1.5$

$y = -2 + 1.6x$

$1.5 \overline{)2.4.0}$ = 1.6

Answer: $y = 1.6x - 2$

13) $2.7 = 5.4y - 8.1x$

$+8.1x \mid +8.1x$

$2.7 + 8.1x = 5.4y$

$\div 5.4 \mid \div 5.4$

$0.5 + 1.5x = y$

Answer: $y = 1.5x + 0.5$

14) $\frac{1}{3}x + \frac{2}{3}y = 1$

$-\frac{1}{3}x \mid -\frac{1}{3}x$

$\frac{2}{3}y = 1 - \frac{1}{3}x$

$\div \frac{2}{3} \mid \div \frac{2}{3}$

$y = 1\frac{1}{2} - \frac{1}{2}x$

$\frac{1}{1} \div \frac{2}{3} = \frac{3}{2}$ or $1\frac{1}{2}$

$-\frac{1}{3} \div \frac{2}{3} = -\frac{1}{2}$

Answer: $y = -\frac{1}{2}x + 1\frac{1}{2}$

15) The formula for simple interest is I = Prt

a) Solve for P.

Answer: $P = \frac{I}{rt}$

b) Use the new formula to find the value of P given that I = \$40, r = 4% (write as a decimal) and t = 2.

$P = \frac{40}{0.04 \times 2} = 500$

Answer: $P = \$500$

REWRITE THE FORMULA. Solve for the BOLDED variable.

16) $i = \frac{ec}{3}$

$\frac{3i}{e} = c$

Answer: $c = \frac{3i}{e}$

17) P = 2ℓ + 2w

$\frac{P-2\ell}{2} = w$

$\frac{1}{2}p - \ell = w$

Answer: $w = \frac{1}{2}p - \ell$

18) $I = \frac{V}{R}$

$\times R \mid \times R$

$\frac{IR}{I} = \frac{V}{I}$

$R = \frac{V}{I}$

Answer: $R = \frac{V}{I}$

19) $S = 3\pi r^2 + 2\pi rh$

$-3\pi r^2 \mid$

$\frac{S - 3\pi r^2}{2\pi r} = \frac{2\pi rh}{2\pi r}$

$\frac{S}{2\pi r} - \frac{3\pi r^2}{2\pi r}$

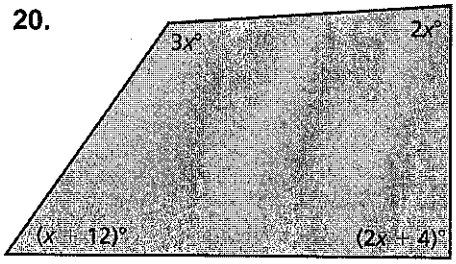
$\frac{3}{2} = 1.5 \quad \frac{\pi}{\pi} = 1 \quad \frac{r^2}{r}$ or $\frac{r \cdot r}{r} = r$

Answer: $h = \frac{S}{2\pi r} - 1.5r$

Find the value of x. Then find the angles measures of the polygon.

20.

$3x =$



$3x + 2x + x + 12 + 2x + 4$

$8x + 16 = 360$

$-16 \quad -16$

$\frac{8x}{8} = \frac{344}{8}$

$x = 43°$

20) x = 43°

4 angle measures:

$3x = 86°$

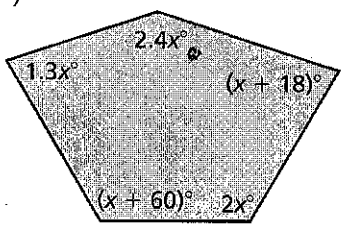
$3x = 129°$

$x + 12 = 55°$

$2x + 4 = 90°$

Find the value of x. Then find the angles measures of the polygon.

21)



Sum of angle measures: 540°

$1.3 \times 60 = 78$
$2.4 \times 60 = 144$

$1.3x + 2.4x + x + 18 + 2x + x + 60$

$7.7x + 78 = 540°$
$-78 \quad | -78$

$7.7x = 462$

$x = 60°$

21) x = 60°

5 angle measures:

$1.3x = 78°$

$2.4x = 144°$

$x + 18 = 78°$

$2x = 120°$

$x + 60 = 120°$

(2pts)

22) The cost of your new book bag is $11.50 more than the cost c of your old book bag. You pay $47 for your new book bag. Write and solve an equation to find the cost of your old book bag

$c + 11.50 = 47.00$
$-11.50 \quad | -11.50$

35.50

22) c = $35.50

23) You can rent a video game for $3.50. Your total cost if rentals for the month was $31.50. Write and solve an equation to find the number of video game rentals for the month.

$\frac{3.5x}{3.5} = \frac{31.50}{3.5}$

$x = 9$

23) 9 video games

24) You purchase 5 movies and a CD. The cost of the CD is $8.50. Your total bill (before tax) is $38.45. Write and solve an equation to find the cost of a movie.

$5m + 8.5 = 38.45$
$-8.5 \quad | -8.50$

$5m = 29.95$

$m = \$5.99$

24) $5.99