

Test 28 5/9/18

98

A+

$$\begin{aligned} 4(B+W) &= 112 \\ 6(B-W) &= 48 \end{aligned}$$

$$\begin{aligned} 4B + 4W &= 112 \\ 6B - 6W &= 48 \end{aligned}$$

$$\begin{aligned} 12B + 12W &= 336 \\ 12B - 12W &= 96 \end{aligned}$$

$$24B = 240$$

$$B = 10$$

$$40 + 4W = 112$$

$$4W = 112 - 40$$

$$4W = 72$$

$$W = 18$$

$$\begin{aligned} 6A &= 40 \\ 5 &= 32 \\ 04 &= 64 \\ T &= 136 \quad 1224 \end{aligned}$$

$$\begin{aligned} 136 \cdot 9 &= 1224 \\ 9 &= 9 \end{aligned}$$

$$64 \cdot 9 = 576$$

$$\begin{aligned} X + 4 &= 15 & X &= 15 - 4 \\ 104 + X - 4 &= 10X + 6 \\ 94 - 4 &= 9X \end{aligned}$$

$$94 - 4 = 9(15 - 4)$$

$$94 - 4 = 135 - 94$$

$$104 = 135 + 4$$

$$104 = 144$$

$$4 = 8$$

$$X = 7$$

$$(78)$$

$$\begin{aligned} 4 \quad S &= P + M \\ 30000 &= 25000 + M \\ M &= 5000 \end{aligned}$$

$$\frac{5000}{25000} = 20\% = PM$$

$$\frac{5000}{30000} = 16.6\% = SM$$

$$\begin{aligned} X + 2Y + Z &= 7 \\ 3X - 4 + Z &= -12 \\ 4X + 3Y - 2Z &= 4 \end{aligned}$$

$$-2$$

$$\begin{aligned} X + 2Y + Z &= 7 \\ 6X - 2Y + 2Z &= -24 \end{aligned}$$

$$7X + 3Z = -17$$

$$-7X - 3Z = 17$$

$$15X + 3Z = -81$$

$$8X = -64$$

$$X = -8$$

$$-40 + Z = -27$$

$$Z = -27 + 40$$

$$Z = 13$$

$$-24 - 4 + 13 = -12$$

$$-11 - 4 = -12$$

$$-4 = -12$$

$$4 = 1$$

$$-8, 1, 13$$

$$\begin{aligned} 9X - 3Y + 3Z &= -36 \\ 4X + 3Y - 2Z &= 9 \end{aligned}$$

$$5X + Z = -27$$

$$13X + Z = -27$$

$$8X + 3Z = -81$$

$$-7X - 3Z = 17$$

$$32X = -64$$

$$X = -2$$

$$-14 + 3Z = -17 \quad -6 - 4 - 1 = -12$$

$$3Z = -3$$

$$Z = -1$$

$$-7 - 4 = -12$$

$$-7 + 12 = 4$$

$$5 = 5$$

$$2, 5, -1$$

80

6 $\frac{2}{3}x - \frac{2}{10}y = \frac{7}{1}$

$.03x + .04y = .67$
 $3x + 4y = 67$

$y = -x^2 + 4x + 1$
 $-y = x^2 - 4x - 1$
 $-y = (x^2 - 4x + 4) - 2 - 4$
 $-y = (x-2)^2 - 5$
 $y = -(x-2)^2 + 5$

$10x - 6y = 30$

$20x - 12y = 60$
 $9x + 12y = 201$

$24x = 261$

$x = 9$

$27 + 4y = 67$
 $4y = 67 - 27$
 $4y = 40$
 $y = 10$

$9 \quad 4x < -12 \quad x < -3$
 $2x + y \geq -4 \quad y \geq -2x - 4$

$\cap (0, 7) \times (2, 5)$

10 $14x^3 = 42x - 7x^2$
 $14x^3 + 7x^2 - 42x = 0$
 $x(14x^2 + 7x - 42) = 0$
 $x(14x^2 + 28x - 21x - 42) = 0$
 $x(14x - 21)(x + 2) = 0$
 $x = 0, \frac{3}{2}, -2$

7 $3.6 \overline{) 23}$

$36 \overline{) 231} > 3$
 $36 \overline{) 23}$
 $3600 \overline{) 7000}$

$3608 \overline{) 7}$
 999

$\frac{36087}{9990}$

11 $\sqrt{x+2} = \sqrt{x+12}$
 $x+12 = x+2\sqrt{x}+2\sqrt{x}+4$
 $12-4 = 4\sqrt{x}$
 $8 = 4\sqrt{x}$
 $2 = \sqrt{x}$
 $x = 4$

17 $27x^3y^6 - a^9c^{12}$
 $3xy^2 - a^3c^4$

$(x-y)(x^2 + xy + y^2)$

$(3xy^2 - a^3c^4)(9x^2y^4 + 3xy^2a^3c^4 + a^6c^8)$

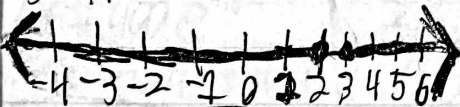
18 - 20
 \rightarrow

13 $(a^{\frac{3}{2}} + c^{\frac{1}{2}})^2$
 $(a^3 + 2a^{\frac{3}{2}}c^{\frac{1}{2}} + c^{\frac{1}{2}})$

14 $f(x) = (x-1)^2$ d: 0
 $g(x) = x+3$ d: 100

$(3-1)^2(2+3)$
 $(4^2)(5)$
 (5)

15 $x^2 - 5x \geq -6$ d: R
 $x^2 - 5x + 6 \geq 0$
 $(x-3)(x-2) \geq 0$
 $x \geq 3$ $x \geq 2$
 $x \leq 3$ $x \leq 2$
 $3 \leq x \leq 2$



16 $\frac{4000}{\min} \times \frac{1000 \text{ min}}{L} \times \frac{\min}{605}$

17 $x+3y=7$ $xy=2$ $18=\frac{12}{x}$
 $x+3(\frac{2}{x})=7=0$
 $x+\frac{6}{x}-7=0$
 $x^2+6-7x=0$ $y=\frac{2}{x}$
 $x^2-7x+6=0$ $y=\frac{2}{6}$ $y=\frac{2}{3}$
 $(x-6)(x-1)$ $y=\frac{1}{3}$ $y=2$
 $x=6, 1$ $(6, \frac{1}{3})$ $(1, 2)$

18 $\frac{4i^2 - 3i^2 - 2}{\sqrt{25} - \sqrt{31}^3}$

$\frac{4i+3-2}{5i-3i^2}$

$\frac{4i+1}{3+5i} \times \frac{3-5i}{3-5i}$ - timer

$\frac{12i - 20i^2 + 3 - 5i}{9 - 25i^2}$

$\frac{7i+3+20}{9+25}$

$(\frac{23+7i}{34})$

19 $\sqrt[5]{165}$

$(2^4 \cdot 3)^{\frac{1}{5}}$

$(2^{\frac{4}{5}} \cdot 3^{\frac{1}{5}})$

$(2^{\frac{4}{5}} \cdot 3^{\frac{1}{5}})$

20 $-8x + 17y$

$\tan^{-1} \frac{17}{8} = 64.799$
 $\frac{-180}{64.799}$
 $\frac{115.201}{115.201}$

$\sqrt{17^2 + 8^2} = \sqrt{353} = 18.788$

$(18.788 / 115.201)$

θ min 115