24F

1) $3.14 \times (6)^2 \times 15 = 1{,}695.6$ cu. in.

2) $3.14 \times (7)^2 \times 25 = 3{,}846.5$ cu. ft.

3) $6X^2 + 5X + 10$
$+ \underline{5X^2 + 9X + 2}$
$11X^2 + 14X + 12$

4) $7X^2 + 7X + 5$
$+ \underline{-5X^2 - 4X - 3}$
$2X^2 + 3X + 2$

5) $4X^2 + 8X + 9$
$+ \underline{-3X^2 + 2X - 6}$
$X^2 + 10X + 3$

6) $4 = 2 \times 2$; $9 = 3 \times 3$
LCM $= 2 \times 2 \times 3 \times 3 = 36$

7) $6 = 2 \times \underline{3}$; $21 = \underline{3} \times 7$
GCF $= 3$

8) $\frac{300}{100} = 3$

9) $\frac{250}{100} = 2\frac{50}{100} = 2\frac{1}{2}$

10) $\frac{175}{100} = 1\frac{75}{100} = 1\frac{3}{4}$

11) line

12) line segment

13) point

14) plane

15) $\frac{9}{10} = \frac{90}{100} = .90 = 90\%$

16) $\frac{19}{20} = \frac{95}{100} = 95\%$

17) no: normal body temperature in Celsius is 37°

18) yes; 0° C is the freezing point of water

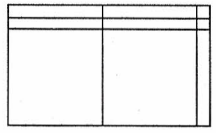
19) $2(8 \times 16) + 2(8 \times 22) = 256 + 352 = 608$ sq. ft.

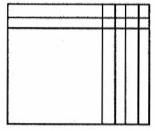
20) 2 gal. ($2 \times 400 = 800$ sq. ft.)

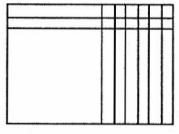
25A

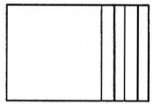
1) done

2) done

3) 
$2X^2 + 5X + 2$

4) 
$X^2 + 6X + 8$

5) 
$X^2 + 8X + 12$

6) 
$X^2 + 4X$

7) done

8)
$X + 7$
$\times \underline{X + 1}$
$X + 7$
$\underline{X^2 + 7X}$
$X^2 + 8X + 7$

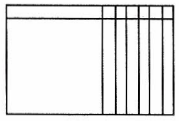
9)
$X + 6$
$\times \underline{X + 3}$
$3X + 18$
$\underline{X^2 + 6X}$
$X^2 + 9X + 18$

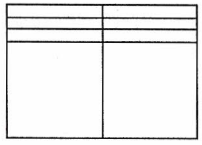
10) done

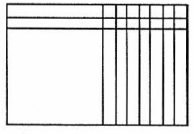
11) done

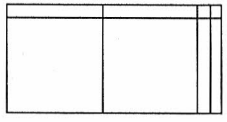
12) $(X + 7)(X + 3) = X^2 + 10X + 21$
$(10)^2 + 10(10) + 21 =$
$100 + 100 + 21 = 221$

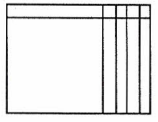
25B

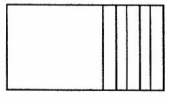
1) 
$X^2 + 7X + 6$

2) 
$2X^2 + 6X$

3) 
$X^2 + 9X + 14$

4) 
$2X^2 + 4X + 2$

5) 
$X^2 + 5X + 4$

6) 
$X^2 + 5X$

7)
$X + 8$
$\times \underline{X + 2}$
$2X + 16$
$\underline{X^2 + 8X}$
$X^2 + 10X + 16$

8)
$X + 9$
$\times \underline{X + 6}$
$6X + 54$
$\underline{X^2 + 9X}$
$X^2 + 15X + 54$

9)
$2X + 9$
$\times \underline{X + 2}$
$4X + 18$
$\underline{2X^2 + 9X}$
$2X^2 + 13X + 18$

10)
$X + 7$
$\times \underline{X + 6}$
$6X + 42$
$\underline{X^2 + 7X}$
$X^2 + 13X + 42$

11)
$X + 5$
$\times \underline{X + 4}$
$4X + 20$
$\underline{X^2 + 5X}$
$X^2 + 9X + 20$

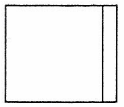
12)
$2X + 3$
$\times \underline{X + 1}$
$2X + 3$
$\underline{2X^2 + 3X}$
$2X^2 + 5X + 3$

13) $(X + 3)(X + 4) =$
$X^2 + 7X + 12$

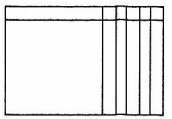
14) $(4)^2 + 7(4) + 12 =$
$16 + 28 + 12 = 56$
$(8)^2 + 7(8) + 12 =$
$64 + 56 + 12 = 132$

15) $R(R + 5) = R^2 + 5R$

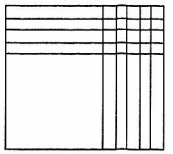
25C

1) 

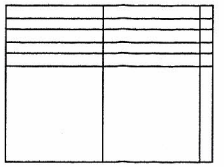
$X^2 + X$

2) 

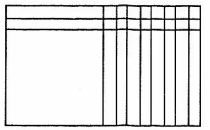
$X^2 + 6X + 5$

3) 

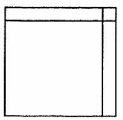
$X^2 + 9X + 20$

4) 

$2X^2 + 11X + 5$

5) 

$X^2 + 10X + 16$

6) 

$X^2 + 2X + 1$

7)
$$\begin{array}{r} 2X + 1 \\ \times\ X + 4 \\ \hline 8X + 4 \\ 2X^2 + X \\ \hline 2X^2 + 9X + 4 \end{array}$$

8)
$$\begin{array}{r} X + 8 \\ \times\ X + 3 \\ \hline 3X + 24 \\ X^2 + 8X \\ \hline X^2 + 11X + 24 \end{array}$$

9)
$$\begin{array}{r} X + 9 \\ \times\ X + 7 \\ \hline 7X + 63 \\ X^2 + 9X \\ \hline X^2 + 16X + 63 \end{array}$$

10)
$$\begin{array}{r} 2X + 5 \\ \times\ X + 3 \\ \hline 6X + 15 \\ 2X^2 + 5X \\ \hline 2X^2 + 11X + 15 \end{array}$$

11)
$$\begin{array}{r} X + 6 \\ \times\ X + 4 \\ \hline 4X + 24 \\ X^2 + 6X \\ \hline X^2 + 10X + 24 \end{array}$$

12)
$$\begin{array}{r} X + 11 \\ \times\ X + 3 \\ \hline 3X + 33 \\ X^2 + 11X \\ \hline X^2 + 14X + 33 \end{array}$$

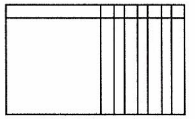
13) $(X + 8)(X + 5) = X^2 + 13X + 40$

14) $(3)^2 + 13(3) + 40 = 9 + 39 + 40 = 88$

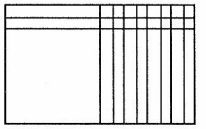
$(6)^2 + 13(6) + 40 = 36 + 78 + 40 = 154$

15) $(F + 10)(F + 5) = F^2 + 15F + 50$

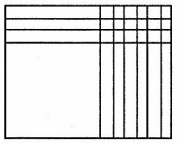
25D

1) 

$X^2 + 8X + 7$

2) 

$X^2 + 10X + 16$

3) 

$X^2 + 9X + 18$

4)
$$\begin{array}{r} X + 5 \\ \times\ X + 3 \\ \hline 3X + 15 \\ X^2 + 5X \\ \hline X^2 + 8X + 15 \end{array}$$

5)
$$\begin{array}{r} 2X + 5 \\ \times\ X + 4 \\ \hline 8X + 20 \\ 2X^2 + 5X \\ \hline 2X^2 + 13X + 20 \end{array}$$

6)
$$\begin{array}{r} X + 9 \\ \times\ X + 2 \\ \hline 2X + 18 \\ X^2 + 9X \\ \hline X^2 + 11X + 18 \end{array}$$

7) $3.14 \times (4)^2 \times 13.7 =$ 688.288 cu. in.

8) $3.14 \times (5.5)^2 \times 14 =$ 1,329.79 cu. ft.

9)
$$\begin{array}{r} 4X^2 + 8X + 9 \\ -3X^2 + 2X - 6 \\ \hline X^2 + 10X + 3 \end{array}$$

10)
$$\begin{array}{r} 5X^2 + 5X + 4 \\ +\ 7X^2 - 1X - 2 \\ \hline 12X^2 + 4X + 2 \end{array}$$

11)
$$\begin{array}{r} 8X^2 + 3X - 2 \\ -4X^2 + 7X + 11 \\ \hline 4X^2 + 10X + 9 \end{array}$$

12) 22.1

13) 4

14) 6.1

15) line segment

16) $3.50 \times 150 = 525$ lbs

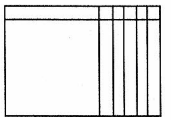
$525 - 150 = 375$ lbs

17) $25 = \underline{5} \times 5$; $45 = 3 \times 3 \times \underline{5}$

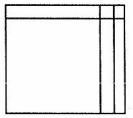
GCF = 5

18) $3 - \frac{19}{8} = \frac{24}{8} - \frac{19}{8} = \frac{5}{8}$

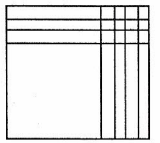
25E

1) 

$X^2 + 6X + 5$

2) 

$X^2 + 3X + 2$

3) 

$X^2 + 7X + 12$

4)
$$\begin{array}{r} 2X + 2 \\ \times\ X + 5 \\ \hline 10X + 10 \\ 2X^2 + 2X \\ \hline 2X^2 + 12X + 10 \end{array}$$

5)
$$\begin{array}{r} X + 7 \\ \times\ X + 1 \\ \hline X + 7 \\ X^2 + 7X \\ \hline X^2 + 8X + 7 \end{array}$$

6)
$$\begin{array}{r} 2X + 8 \\ \times\ X + 2 \\ \hline 4X + 16 \\ 2X^2 + 8X \\ \hline 2X^2 + 12X + 16 \end{array}$$

7) $3.14 \times (5)^2 \times 10.6 =$ 832.1 cu. in.

8) $3.14 \times (6.5)^2 \times 17.3 =$ 2,295.1 cu. ft. rounded

9)
$$\begin{array}{r} 9X^2 + 5X + 4 \\ -8X^2 + 3X - 7 \\ \hline X^2 + 8X - 3 \end{array}$$

10)
$$\begin{array}{r} 9X^2 - 2X + 9 \\ -2X^2 - 6X - 4 \\ \hline 7X^2 - 8X + 5 \end{array}$$

11)
$$\begin{array}{r} X^2 - X + 6 \\ +\ 5X^2 - 8X - 3 \\ \hline 6X^2 - 9X + 3 \end{array}$$

12) $7 \times 3 + 7 \times 4 = 21 + 28 = 49$

13) $8X + 5 \times 8 = 8X + 40$

14) $Y \times Y + 9Y = Y^2 + 9Y$

15) $\frac{S}{14} = \frac{12}{21}$

$21S = 12 \times 14$

$21S = 168$

$S = 8$

16) $\frac{2}{4} = \frac{10}{D}$

$2D = 4 \times 10$

$2D = 40$

$D = 20$

17) angle

18) $9 = 3 \times 3$; $5 = 1 \times 5$

LCM $= 3 \times 3 \times 5 = 45$

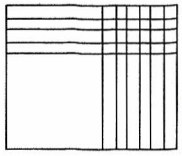
19) 1/4 of \$32 = \$8

\$32 - \$8 = \$24

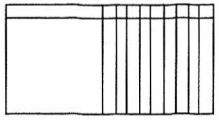
\$24 x 1.04 = \$24.96

20) \$25 - \$24.96 = \$ .04

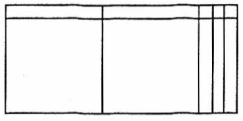
25F

1) 

$X^2 + 10X + 24$

2) 

$X^2 + 10X + 9$

3) 

$2X^2 + 5X + 3$

4) $\begin{array}{r} 3X + 4 \\ \times\ X + 3 \\ \hline 9X + 12 \\ 3X^2 + 4X \\ \hline 3X^2 + 13X + 12 \end{array}$

5) $\begin{array}{r} X + 3 \\ \times\ X + 2 \\ \hline 2X + 6 \\ X^2 + 3X \\ \hline X^2 + 5X + 6 \end{array}$

6) $\begin{array}{r} 2X + 5 \\ \times\ X + 1 \\ \hline 2X + 5 \\ 2X^2 + 5X \\ \hline 2X^2 + 7X + 5 \end{array}$

7) $3.14 \times (3)^2 \times 8 =$
226.08 cu. in.

8) $3.14 \times (5)^2 \times 5.3 =$
416.05 cu. ft.

9) $\begin{array}{r} 6X^2 + 5X + 2 \\ + \ 7X^2 + 3X - 1 \\ \hline 13X^2 + 8X + 1 \end{array}$

10) $\begin{array}{r} 4X^2 - X - 9 \\ + \ 8X^2 - 8X - 2 \\ \hline 12X^2 - 9X - 11 \end{array}$

11) $\begin{array}{r} -3X^2 + 6X - 5 \\ + \ 8X^2 - 4X + 7 \\ \hline 5X^2 + 2X + 2 \end{array}$

12) $5^2 + 2 \cdot 3 - 8 + |-5| =$
$25 + 6 - 8 + 5 = 28$

13) $|16 \div 4 + (3)(4) - 19| =$
$|4 + 12 - 19| = |-3| = 3$

14) $(2^2 - 6) + 11 - 9 =$
$(4 - 6) + 11 - 9 =$
$-2 + 11 - 9 = 0$

15) $\frac{W}{21} = \frac{15}{25}$
$25W = 21 \times 15$
$25W = 315$
$W = 12.6$

16) $\frac{X}{1} = \frac{4.5}{1.5}$; $1.5X = 4.5$; $X = 3$

17) $24 = \underline{2} \times \underline{2} \times \underline{2} \times 3$
$32 = \underline{2} \times \underline{2} \times \underline{2} \times 2 \times 2$
$GCF = 2 \times 2 \times 2 = 8$

18) .40 x $12 = $4.80 discount
$12 - $4.80 = $7.20

19) $12 - $7.20 = $4.80

20) $2.98 x 1.77 = $5.27 rounded

26A

1) done
2) done
3) $\begin{array}{r} {\scriptstyle 1} \\ 5:30 \\ +\ 1:30 \\ \hline 7:00 \end{array}$
4) $\begin{array}{r} 1:15 \\ +\ 2:40 \\ \hline 3:55 \end{array}$
5) $\begin{array}{r} {\scriptstyle 1\ 1} \\ :55 \\ +\ 1:15 \\ \hline 2:10 \end{array}$
6) $\begin{array}{r} {\scriptstyle 1} \\ 4:43 \\ +\ 3:22 \\ \hline 8:05 \end{array}$
7) done
8) $\begin{array}{r} 3:75 \\ -\ 3:40 \\ \hline :35 \end{array}$
9) $\begin{array}{r} {\scriptstyle 8\ 1} \\ 6:\not{9}5 \\ -\ 2:58 \\ \hline 4:37 \end{array}$
10) done
11) $11:24 + 12 = 11:36$
$-\ 5:48 + 12 = 6:00$
$5:36$
12) $4:15 + 14 = 4:29$
$-\ 2:46 + 14 = 3:00$
$1:29$
13) 8:35 + 1:25 = 10:00
14) 11:20 + 1:50 = 13:10
15) 4:30 - 2:45 = 1:45

26B

1) $\begin{array}{r} {\scriptstyle 1} \\ 5:18 \\ +\ 6:36 \\ \hline 11:54 \end{array}$
2) $\begin{array}{r} {\scriptstyle 1} \\ 7:36 \\ +\ 3:40 \\ \hline 11:16 \end{array}$
3) $\begin{array}{r} {\scriptstyle 1} \\ 9:50 \\ +\ 6:30 \\ \hline 16:20 \end{array}$
4) $\begin{array}{r} 3:38 \\ +\ 2:21 \\ \hline 5:59 \end{array}$
5) $\begin{array}{r} {\scriptstyle 1\ 1} \\ 2:56 \\ +\ 1:18 \\ \hline 4:14 \end{array}$
6) $\begin{array}{r} {\scriptstyle 1\ 1} \\ 3:45 \\ +\ 1:19 \\ \hline 5:04 \end{array}$
7) $\begin{array}{r} 8:75 \\ -\ 6:30 \\ \hline 2:45 \end{array}$
8) $\begin{array}{r} 7:85 \\ -\ 6:45 \\ \hline 1:40 \end{array}$
9) $\begin{array}{r} 2:81 \\ -\ 1:50 \\ \hline 1:31 \end{array}$
10) $8:19 + 37 = 8:56$
$-\ 4:23 + 37 = 5:00$
$3:56$
11) $5:27 + 31 = 5:58$
$-\ 2:29 + 31 = 3:00$
$2:58$
12) $5:37 + 5 = 5:42$
$-\ 1:55 + 5 = 2:00$
$3:42$
13) 6:20 + 5:15 = 11:35
14) 2:20 + 1:40 = 4:00
15) 6:15 - 4:13 = 2:02

26C

1) $\begin{array}{r} {\scriptstyle 1\ 1} \\ 6:17 \\ +\ 5:55 \\ \hline 12:12 \end{array}$
2) $\begin{array}{r} {\scriptstyle 1\ 1} \\ 3:18 \\ +\ 1:53 \\ \hline 5:11 \end{array}$
3) $\begin{array}{r} {\scriptstyle 1} \\ 3:14 \\ +\ 5:17 \\ \hline 8:31 \end{array}$
4) $\begin{array}{r} {\scriptstyle 1} \\ 8:30 \\ +\ 6:40 \\ \hline 15:10 \end{array}$
5) $\begin{array}{r} 2:43 \\ +\ 3:16 \\ \hline 5:59 \end{array}$
6) $\begin{array}{r} {\scriptstyle 1\ 1} \\ 8:25 \\ +\ 1:46 \\ \hline 10:11 \end{array}$
7) $\begin{array}{r} 8:90 \\ -\ 2:40 \\ \hline 6:50 \end{array}$
8) $\begin{array}{r} {\scriptstyle 6\ 1} \\ 3:\not{X}5 \\ -\ 2:46 \\ \hline 1:29 \end{array}$
9) $\begin{array}{r} 11:78 \\ -\ 3:55 \\ \hline 8:23 \end{array}$
10) $8:36 + 13 = 8:49$
$-\ 2:47 + 13 = 3:00$
$5:49$
11) $5:30 + 5 = 5:35$
$-\ 1:55 + 5 = 2:00$
$3:35$
12) $4:25 + 17 = 4:42$
$-\ 1:43 + 17 = 2:00$
$2:42$
13) 7:45 + 2:55 = 10:40
14) 5:10 + 6:42 = 11:52
15) 5:25 - 4:30 = :55