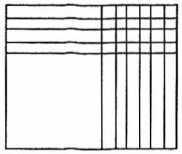
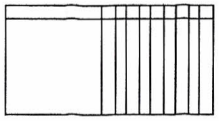
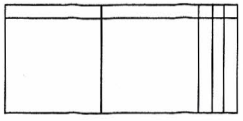
25F

1) 

$X^2 + 10X + 24$

2) 

$X^2 + 10X + 9$

3) 

$2X^2 + 5X + 3$

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

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

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

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

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

$\begin{array}{r} 2X^2 + 5X \\ \hline 2X^2 + 7X + 5 \end{array}$

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) $24 = 2 \times 2 \times 2 \times 3$
$32 = 2 \times 2 \times 2 \times 2 \times 2$
$GCF = 2 \times 2 \times 2 = 8$

18) $.40 \times \$12 = \$4.80$ discount
$\$12 - \$4.80 = \$7.20$

19) $\$12 - \$7.20 = \$4.80$

20) $\$2.98 \times 1.77 = \$5.27$ rounded

26A

1) done
2) done
3) $\begin{array}{r} {}^{1}5:30 \\ +\ 1:30 \\ \hline 7:00 \end{array}$
4) $\begin{array}{r} 1:15 \\ +\ 2:40 \\ \hline 3:55 \end{array}$
5) $\begin{array}{r} {}^{1\ 1}:55 \\ +\ 1:15 \\ \hline 2:10 \end{array}$
6) $\begin{array}{r} {}^{1}4:43 \\ +\ 3:22 \\ \hline 8:05 \end{array}$
7) done
8) $\begin{array}{r} 3:75 \\ -\ 3:40 \\ \hline :35 \end{array}$
9) $\begin{array}{r} {}^{8\ 1}6:\not{0}5 \\ -\ 2:58 \\ \hline 4:37 \end{array}$
10) done
11) $\begin{array}{r} 11:24+12=11:36 \\ -\ 5:48+12=\ 6:00 \\ \hline 5:36 \end{array}$
12) $\begin{array}{r} 4:15+14=4:29 \\ -\ 2:46+14=3:00 \\ \hline 1:29 \end{array}$
13) 8:35 + 1:25 = 10:00
14) 11:20 + 1:50 = 13:10
15) 4:30 - 2:45 = 1:45

26B

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

26C

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

26D

1) $7:\overset{8}{\cancel{9}}\overset{1}{0}$
$-\ 2:55$
$5:35$

2) $\overset{1}{2}:\overset{1}{5}8$
$+\ 5:12$
$8:10$

3) $\overset{1}{5}:\overset{1}{3}8$
$+\ 2:25$
$8:03$

4) $X + 3$
$\times\ X + 9$
$9X + 27$
$X^2 + 3X$
$X^2 + 12X + 27$

5) $3X + 2$
$\times\ X + 5$
$15X + 10$
$3X^2 + 2X$
$3X^2 + 17X + 10$

6) $3X + 6$
$\times\ X + 7$
$21X + 42$
$3X^2 + 6X$
$3X^2 + 27X + 42$

7) $2(1.2 \times 3) + 2(3 \times .5) + 2(1.2 \times .5) =$
$7.2 + 3 + 1.2 = 11.4$ sq. ft.

8) $4 \times 4 + 4(4 \times 6 \times 1/2) =$
$16 + 48 = 64$ sq. ft.

9) $2(4 \times 6.4) + 2(6.4 \times 2) + 2(4 \times 2) =$
$51.2 + 25.6 + 16 = 92.8$ sq. in.

10) $2(3 + X) - 16 = |2 \cdot 3|$
$6 + 2X - 16 = 6$
$2X = 6 - 6 + 16$
$2X = 16$
$X = 8$

11) $A(4 + 8) - 5 = 2(3 + A) - 1^2$
$12A - 5 = 6 + 2A - 1$
$12A - 2A = 6 - 1 + 5$
$10A = 10$
$A = 1$

12) $(-3)^2 - 10 - X = -|6 - 12|$
$9 - 10 - X = -|-6|$
$9 - 10 - X = -6$
$9 - 10 + 6 = X$
$5 = X$

13) acute

14) obtuse

15) 8:30 - 5:20 = 3:10
3 hours and 10 minutes

16) $3.14 \times (12)^2 \times 50 = 22{,}608$ cu. ft.

17) no: $3.14 \times (6)^2 \times 25 = 2{,}826$ cu. ft.

18) yes: $3.14 \times (12)^2 \times 25 = 11{,}304$ cu. ft.
$11{,}304 \times 2 = 22{,}608$

26E

1) $\overset{1}{2}:\overset{1}{2}5$
$+\ 4:45$
$7:10$

2) $3:79$
$-\ 1:36$
$2:43$

3) $\overset{1}{8}:23$
$+\ 2:46$
$11:09$

4) $2X + 1$
$\times\ X + 6$
$12X + 6$
$2X^2 + X$
$2X^2 + 13X + 6$

5) $X + 12$
$\times\ X + 9$
$9X + 108$
$X^2 + 12X$
$X^2 + 21X + 108$

6) $X + 10$
$\times\ X + 8$
$8X + 80$
$X^2 + 10X$
$X^2 + 18X + 80$

7) $2(.4 \times 1.3) + 2(1.3 \times .2) + 2(.4 \times .2) =$
$1.04 + .52 + .16 = 1.72$ sq. yds.

8) $3.4 \times 3.4 + 4(10 \times 3.4 \times 1/2) =$
$11.56 + 68 = 79.56$ sq. in.

9) $2(10 \times 20) + 2(20 \times 5) + 2(10 \times 5) =$
$400 + 200 + 100 = 700$ sq. ft.

10) $75 \div 100 = .75$

11) $5 \div 6 = .83$

12) $1 \div 4 = .25$

13) $4 \div 7 = .57$

14) 180

15) 90

16) 7:05 - 5:45 = 1:20

17) 425 - 32 = 393
$393 \times 5/9 = 218.33$ (220.1°)

18) $325\% = 3\frac{25}{100} = 3.25$

19) $10 \times 2 = 20$
$2.00 = 200\%$

20) $\frac{3}{8} \times \frac{1}{2} = \frac{3}{16}$

26F

1) $5:2^{1}7$
$-\ 1:19$
$4:08$

2) $3:86$
$-\ 3:50$
$:36$

3) $^{1}3:^{1}19$
$+\ 1:55$
$5:14$

4) $(X+6)(X+5) = X^2+11X+30$

5) $(X+9)(X+2) = X^2+11X+18$

6) $(3X+1)(X+5) = 3X^2+16X+5$

7) $2(6 \times 12) + 2(6 \times 3) + 2(12 \times 3) =$
$144 + 36 + 72 = 252$ sq. yds.

8) $4.8 \times 4.8 + 4(4.8 \times 6.5 \times 1/2) =$
$23.04 + 62.4 = 85.44$ sq. in.

9) $2(5 \times 8) + 2(5 \times 2.1) + 2(8 \times 2.1) =$
$80 + 21 + 33.6 = 134.6$ sq. ft.

10) $.50 = \frac{50}{100} = \frac{1}{2}$

11) $\frac{35}{100} = \frac{7}{20}$

12) $\frac{875}{1000} = \frac{175}{200} = \frac{35}{40} = \frac{7}{8}$

13) $\frac{40}{100} = \frac{2}{5}$

14) obtuse

15) acute

16) 3:30 + 1:45 = 5:15

17) 230 - 32 = 198
198 x 5/9 = 110° (110.9°)

18) 25 - 15 = 10 away games
.40 x 10 = 4 away games lost

19) $3.14 \times (28)^2 \times 48 =$
118,164.48 cu. ft.

20) $9\frac{5}{8} + 6\frac{4}{8} = 15\frac{9}{8} = 16\frac{1}{8}$

27A

1) done

2) done

3) V = 1/3Bh
V = 1/3(10 x 10)(40)
V = 1,333.33 cu. in.

4) V = 1/3Bh
V = 1/3(3.14)(2^2)(6)
V = 25.12 cu. in.

5) V = 1/3Bh
V = 1/3(3.6 x 3.6)(4)
V = 17.28 cu. ft.

6) V = 1/3Bh
V = 1/3(3.14)(4.2^2)(9)
V = 166.17 cu. ft.

7) 1/3(2.5 x 2.5)(4.5) =
9.38 cu. yd. rounded
or:
$\frac{1}{3} \times \frac{5}{2} \times \frac{5}{2} \times \frac{9}{2} =$
$\frac{225}{24} = 9\frac{3}{8}$ cu. yd.

8) 1/3(3.14)(4.5^2)(8) =
169.56 cu. in.

27B

1) V = 1/3Bh
V = 1/3(3.5 x 3.5)(3.5)
V = 14.30 cu. yds.

2) V = 1/3Bh
V = 1/3(3.14)(3.4^2)(7)
V = 84.70 cu. in.

3) V = 1/3Bh
V = 1/3(5 x 5)(6)
V = 50 cu. in.

4) V = 1/3Bh
V = 1/3(3.14)(5^2)(8)
V = 209.33 cu. in.

5) V = 1/3Bh
V = 1/3(2.4 x 2.4)(5)
V = 9.6 cu. ft.

6) V = 1/3Bh
V = 1/3(3.14)(11^2)(14.3)
V = 1,811.05 cu. ft.

7) 1/3(3 x 3)(4) = 12 cu. yds.

8) 1/3(3.14)(2^2)(5) =
20.93 cu. in.

27C

1) V = 1/3Bh
V = 1/3(60 x 60)(50)
V = 60,000 cu. ft.

2) V = 1/3Bh
V = 1/3(3.14)(62^2)(52)
V = 209,216.11 cu. ft.

3) V = 1/3Bh
V = 1/3(1 x 1)(9)
V = 3 cu. in.

4) V = 1/3Bh
V = 1/3(3.14)(8^2)(12.4)
V = 830.63 cu. in.

5) V = 1/3Bh
V = 1/3(4.8 x 4.8)(10)
V = 76.8 cu. ft.

6) V = 1/3Bh
V = 1/3(3.14)(14^2)(17)
V = 3,487.49 cu. ft.

7) 6 x 6 x 6 = 216 cu. in.
1/3(6 x 6)(6) =
72 cu. in.

8) 1/3(3.14)(3^2)(6) =
56.52 cu. in.