Unit Test III

1) $Y = 3(25)$
$Y = 75$

2) $32A = 14(16)$
$2A = 14$
$A = 7$

3) $\frac{7}{G} = \frac{7}{8}$
$G = 8$

4) $\frac{3}{4} = \frac{9}{R}$
$3R = 36$
$R = 12$

5) $\frac{.2}{.6} = \frac{10}{E}$
$.2E = .6(10)$
$2E = 6(10)$
$E = 30$

6) $4 = 2 \times 2$; $5 = 1 \times 5$
LCM $= 2 \times 2 \times 5 = 20$

7) $15 = 3 \times 5$; $20 = 2 \times 2 \times 5$
LCM $= 2 \times 2 \times 3 \times 5 = 60$

8) $12 = 2 \times 2 \times 3$;
$32 = 2 \times 2 \times 2 \times 2 \times 2$
LCM $= 2 \times 2 \times 2 \times 2 \times 2 \times 3 = 96$

9) $11 = 1 \times 11$; $22 = 2 \times 11$
GCF = 11

10) $16 = 2 \times 2 \times 2 \times 2$; $18 = 2 \times 3 \times 3$
GCF = 2

11) $10 = 2 \times 5$; $25 = 5 \times 5$
GCF = 5

12) $2(15x13)+2(15x10)+2(10x13)=$
$390 + 300 + 260 = 950$ sq. ft.

13) $(10^2) + 4(1/2 \times 10 \times 5) =$
$100 + 100 = 200$ sq. ft.

14) $30 \times 9/5 = 54$
$54 + 32 = 86°$ F; summer

15) $41 - 32 = 9$
$9 \times 5/9 = 5°$ C

16) $|2 - 4^2| + |5| =$
$|2 - 16| + 5 =$
$|-14| + 5 = 14 + 5 = 19$

17) 10.5

18) 2.24

19) 6.69

20) 4.3

21) 2.36

22) .00216

23) 24.18

24) .4

25) 1,500

26) 2

27) $4 \div 5 = .80 = 80\%$

28) $1 \div 3 = .33\frac{1}{3} = 33\frac{1}{3}\%$

29) $16 \div 100 = .16 = 16\%$

30) $\$80 \times .05 = \$4$

Test 23

1) $7X^2 - 4X - 1$
$-5X^2 + 2X + 4$
$2X^2 - 2X + 3$

2) $3X^2 + 3X + 6$
$1X^2 + 6X - 1$
$4X^2 + 9X + 5$

3) $-X^2 - 2X - 2$
$-4X^2 + X + 9$
$-5X^2 - 1X + 7$

4) $9X^2 - 6X - 3$
$-6X^2 + 3X + 8$
$3X^2 - 3X + 5$

5) $5X^2 + 4X + 7$
$3X^2 + 8X - 2$
$8X^2 + 12X + 5$

6) $-7X^2 - X - 5$
$-X^2 + 5X + 1$
$-8X^2 + 4X - 4$

7) $5R = 2 \times 100$
$5R = 200$
$R = 40$

8) $2X = 46 \times 7$
$X = 23 \times 7$
$X = 161$

9) $11Q = 50 \times 22$
$Q = 50 \times 2$
$Q = 100$

10) $5.00 \times 3.4 = 17$

11) $2.50 \times 78.2 = 195.5$

12) $1.20 \times 40 = 48$

13) $6 = 2 \times 3$
$8 = 2 \times 2 \times 2$
LCM $= 2 \times 2 \times 2 \times 3 = 24$

14) $6 = 2 \times \underline{3}$
$21 = \underline{3} \times 7$
GCF = 3

15) $2(7x10.1)+2(7x8)+2(10.1x8)=$
$141.4+112+161.6=415$ sq. in.

16) $(.5 \times .5) + 4(1/2 \times .5 \times .12) =$
$.25 + .12 = .37$ sq. ft.

17) 212° F

18) $\frac{3}{4} + 1\frac{2}{4} + 2\frac{1}{4} = 3\frac{6}{4} = 4\frac{2}{4} = 4\frac{1}{2}$

19) $1.70 \times \$1{,}500 = \$2{,}550$

20) $3X + 9 = -2X + 44$
$3X + 2X = 44 - 9$
$5X = 35$
$X = 7$

Test 24

1) $3.14(4^2)(10) = 502.4$ cu. in.
2) $3.14(3^2)(13) = 367.38$ cu. yd.
3) $3.14(3^2)(5) = 141.3$ cu. ft.
4) $3.14(5^2)(6) = 471$ cu. ft.

5) $5X^2 + 4X + 9$
$3X^2 + 8X + 1$
$8X^2 + 12X + 10$

6) $8X^2 + 9X + 6$
$-5X^2 - 3X - 2$
$3X^2 + 6X + 4$

7) $3X^2 + 7X + 8$
$-2X^2 + 3X - 9$
$X^2 + 10X - 1$

8) $10 = 2 \times 5$
$15 = 3 \times 5$
LCM $= 2 \times 3 \times 5 = 30$

9) $12 = \underline{2} \times \underline{2} \times \underline{3}$
$48 = \underline{2} \times \underline{2} \times 2 \times 2 \times \underline{3}$
GCF $= 2 \times 2 \times 3 = 12$

10) $\frac{800}{100} = 8$

11) $\frac{375}{100} = 3\frac{75}{100} = 3\frac{3}{4}$

12) $\frac{240}{100} = 2\frac{40}{100} = 2\frac{2}{5}$

13) line segment
14) plane
15) point
16) line
17) 37° C

18) $\frac{1}{3} = 33\frac{1}{3}\%$; $33\frac{1}{3} > 25$

19) $\frac{7}{2} \times \frac{50}{1} = \frac{350}{2} = 175$ miles

20) $\frac{18}{20} = 18 \div 20 = .90 = 90\%$