

Test 21

- 1) $18 = 2 \times 3 \times 3$
- 2) $25 = 5 \times 5$
- 3) $7 = 1 \times 7$
- 4) $32 = 2 \times 2 \times 2 \times 2 \times 2$
 $64 = 2 \times 2 \times 2 \times 2 \times 2 \times 2$
 $\text{LCM} = 2 \times 2 \times 2 \times 2 \times 2 \times 2 = 64$
- 5) $5 = 1 \times 5$; $7 = 1 \times 7$
 $\text{LCM} = 5 \times 7 = 35$
- 6) $25 = 5 \times 5$; $10 = 2 \times 5$
 $\text{LCM} = 2 \times 5 \times 5 = 50$
- 7) $11 = 1 \times 11$; $12 = 2 \times 2 \times 3$
 $\text{LCM} = 2 \times 2 \times 3 \times 11 = 132$
- 8) $8 = 2 \times 2 \times 2$; $12 = 2 \times 2 \times 3$
 $\text{LCM} = 2 \times 2 \times 2 \times 3 = 24$
- 9) $4 = 2 \times 2$; $6 = 2 \times 3$
 $\text{LCM} = 2 \times 2 \times 3 = 12$
- 10) $\frac{3.1}{2.8} = \frac{R}{8.4}$
 $2.8R = 3.1 \times 8.4$
 $R = 3.1 \times 3$
 $R = 9.3$

- 11) $\frac{E}{8} = \frac{7}{.5}$
 $.5E = 8 \times 7$
 $.5E = 56$
 $E = 11.2$
- 12) $.25 = 25\%$
- 13) $.66\frac{2}{3} = 66\frac{2}{3}\%$
- 14) $.03 = 3\%$
- 15) $.87\frac{1}{2} = 87\frac{1}{2}\%$
- 16) $.50 = 50\%$
- 17) $.40 = 40\%$
- 18) $3^2 + 5^2 = 7^2$
 $9 + 25 = 49$
 $36 \neq 49$; no
- 19) $5\frac{1}{2} - 1\frac{3}{8} = 5\frac{4}{8} - 1\frac{3}{8} = 4\frac{1}{8}$
- 20) $S + 2S = 9$
 $3S = 9$
 $S = 3$

Test 22

- 1) $24 = 2 \times 2 \times 2 \times 3$
 $42 = 2 \times 3 \times 7$
 $\text{GCF} = 2 \times 3 = 6$
- 2) $21 = 3 \times 7$
 $14 = 2 \times 7$
 $\text{GCF} = 7$
- 3) $44 = 2 \times 2 \times 11$
 $36 = 2 \times 2 \times 3 \times 3$
 $\text{GCF} = 2 \times 2 = 4$
- 4) $12 = 2 \times 2 \times 3$
 $48 = 2 \times 2 \times 2 \times 2 \times 3$
 $\text{GCF} = 2 \times 2 \times 3 = 12$
- 5) $3 = 1 \times 3$
 $9 = 3 \times 3$
 $\text{GCF} = 3$
- 6) $10 = 2 \times 5$
 $60 = 2 \times 2 \times 3 \times 5$
 $\text{GCF} = 2 \times 5 = 10$
- 7) $3 = 1 \times 3$
 $6 = 2 \times 3$
 $\text{LCM} = 2 \times 3 = 6$
- 8) $8 = 2 \times 2 \times 2$
 $12 = 2 \times 2 \times 3$
 $\text{LCM} = 2 \times 2 \times 2 \times 3 = 24$
- 9) $5 = 1 \times 5$
 $15 = 3 \times 5$
 $\text{LCM} = 3 \times 5 = 15$
- 10) -58
- 11) -608
- 12) -3
- 13) $100 \times .35 = 35$
- 14) $.02 \times 4.6 = .092$
- 15) $.95 \times .10 = .095$
- 16) $25 \div 5 + 3(X + 7) = 2X + 3^3$
 $25 \div 5 + 3X + 21 = 2X + 27$
 $5 + 3X + 21 = 2X + 27$
 $3X - 2X = 27 - 21 - 5$
 $X = 1$
- 17) $4X + 3^2 - 9 + 17 = 27 - X$
 $4X + 9 - 9 + 17 = 27 - X$
 $4X + 17 = 27 - X$
 $5X = 27 - 17$
 $5X = 10$
 $X = 2$
- 18) $\$12.45 + \$35.95 = \$48.40$ spent
 $\$50.00 - \$48.40 = \$1.60$
- 19) $.20 \times 50 = 10$ found Monday
 $.10 \times 50 = 5$ found Tuesday.
 $5 + 10 = 15$ found altogether
 $50 - 15 = 35$ left to find
- 20) $1 \div 4 = .25 = 25\%$