Grade 6 to 7

Review Packet

Answers

Summer Use

Add/Subtract Fractions and Mixed Numbers

1. $\frac{4}{3}+\frac{5}{3} = \frac{9}{3} = \boxed{3}$

2. $\frac{2}{5}+\frac{11}{7} = \frac{2(7)}{5(7)} + \frac{11(5)}{7(5)} = \frac{14}{35} + \frac{55}{35} = \frac{69}{35}$

$= \frac{35}{35} + \frac{34}{35} = \boxed{1\frac{34}{35}}$

3. $\frac{4}{3}-\frac{1}{2} = \frac{4}{3}\frac{(2)}{(2)} - \frac{1}{2}\frac{(3)}{(3)}$

$= \frac{8}{6} - \frac{3}{6} = \boxed{\frac{5}{6}}$

4. $\frac{1}{3}+\frac{3}{9} = \frac{1(3)}{3(3)} + \frac{3}{9} = \frac{3}{9} + \frac{3}{9}$

$= \frac{6}{9} = \boxed{\frac{2}{3}}$

5. $4\frac{1}{2} - \frac{1}{2} = 4 + \frac{1}{2} - \frac{1}{2}$

$= \boxed{4}$

6. $1\frac{3}{5}+2\frac{3}{5} = 1+\frac{3}{5}+2+\frac{3}{5}$

$= 1+2+\frac{3}{5}+\frac{3}{5}$

$= 3+\frac{6}{5} = 3+1\frac{1}{5} = \boxed{4\frac{1}{5}}$

7. $4\frac{7}{8}-3\frac{5}{7} = \left(4+\frac{7}{8}\right)-\left(3+\frac{5}{7}\right)$

$= 4+\frac{7}{8}-3-\frac{5}{7}$

$= 4-3+\frac{7}{8}-\frac{5}{7} = 1+\frac{7(7)}{8(7)}-\frac{5(8)}{7(8)}$

$= 1+\frac{49}{56}-\frac{40}{56} = 1+\frac{9}{56}$

$= \boxed{1\frac{9}{56}}$

8. $4\frac{5}{7}-3\frac{1}{2} = \left(4+\frac{5}{7}\right)-\left(3+\frac{1}{2}\right)$

$= 4+\frac{5}{7}-3-\frac{1}{2} = 4-3+\frac{5}{7}\frac{(2)}{(2)}-\frac{1}{2}\frac{(7)}{(7)}$

$\frac{10}{14} - \frac{7}{14}$

1 3/14

9. $2\frac{1}{6}-\frac{1}{3}$

I cannot subtract because $\frac{1}{6}$ is smaller than $\frac{1}{3}$ I am going to do this problem a little different

$2\frac{1}{6}-\frac{1}{3} = 2\frac{1}{6}-\frac{1}{3}\frac{(2)}{(2)}$

$= 2+\frac{1}{6}-\frac{2}{6}$ can't do this

$= 1+1+\frac{1}{6}-\frac{2}{6}$

$= 1+\frac{6}{6}+\frac{1}{6}-\frac{2}{6}$

$= 1+\left(\frac{7}{6}-\frac{2}{6}\right)$

$= 1+5/6 = \boxed{1\frac{5}{6}}$

10. $3\frac{1}{4}-1\frac{2}{3} = 3+\frac{1}{4}-1-\frac{2}{3} = 3+\frac{1}{4}\frac{(3)}{(3)}-1-\frac{2}{3}\frac{(4)}{(4)}$

$= 3+\frac{3}{12}-1+\frac{8}{12} = 2+1+\frac{3}{12}-1-\frac{8}{12}$

$= 2+\frac{12}{12}+\frac{3}{12}-1-\frac{8}{12} = 2-1+\left(\frac{12}{12}+\frac{3}{12}-\frac{8}{12}\right)$

$= 1+\frac{7}{12} = \boxed{1\frac{7}{12}}$

Multiplying/Dividing Fractions

1. $\frac{8}{7} \times \frac{7}{10} = \frac{2(4)}{7} \times \frac{7}{2(5)} = \frac{4 \times 1}{1 \times 5} = \boxed{\frac{4}{5}}$

2. $\frac{2}{3} \times \frac{5}{4} = \frac{2}{3} \times \frac{5}{4_2} = \frac{1 \times 5}{3 \times 2} = \boxed{\frac{5}{6}}$

3. $2 \times \frac{3}{7} = \frac{2}{1} \times \frac{3}{7} = \frac{6}{7}$

Convert to improper fractions → $2\frac{2}{3} = \frac{(3 \times 2)+2}{3}$ (Same denom.)

4. $2\frac{2}{3} \times 4\frac{1}{10} = \frac{(3 \times 2)+2}{3} \times \frac{(10 \times 4)+1}{10}$

$= \frac{6+2}{3} \times \frac{40+1}{10} = \frac{8}{3} \times \frac{41}{10_5} = \frac{4 \times 41}{3 \times 5} = \boxed{\frac{164}{15}}$ or $\boxed{10\frac{14}{15}}$

5. $2\frac{1}{5} \times 1\frac{3}{4} = \frac{(5 \times 2)+1}{5} \times \frac{(4 \times 1)+3}{4}$

$= \frac{10+1}{5} \times \frac{4+3}{4} = \frac{11}{5} \times \frac{7}{4} = \boxed{\frac{77}{20} \text{ or } 3\frac{17}{20}}$

6. $\frac{1}{5} \div \frac{7}{4} = \frac{1}{5} \div \left(\frac{7}{4}\right) = \frac{1}{5} \times \left(\frac{4}{7}\right) = \frac{1 \times 4}{5 \times 7} = \boxed{\frac{4}{35}}$

(when the sign changes; then flip (reciprocal))

7. $\frac{1}{2} \div \frac{5}{4} = \frac{1}{2} \times \frac{4}{5} = \frac{1}{2_1} \times \frac{4^2}{5}$

$= \frac{1 \times 2}{1 \times 5} = \boxed{\frac{2}{5}}$

8. $\frac{1}{2} \div \frac{8}{7} = \frac{1}{2} \times \frac{7}{8} = \frac{1 \times 7}{2 \times 8} = \boxed{\frac{7}{16}}$

9. $\frac{1}{9} \div 1\frac{1}{3} = \frac{1}{9} \div \frac{(3 \times 1)+1}{3}$

$= \frac{1}{9} \div \frac{3+1}{3} = \frac{1}{9} \div \frac{4}{3}$

$= \frac{1}{9} \times \frac{3}{4} = \frac{1}{9_3} \times \frac{3^1}{4}$

$= \frac{1 \times 1}{3 \times 4} = \boxed{\frac{1}{12}}$

10. $1\frac{6}{7} \div 5\frac{3}{4} = \frac{(7 \times 1)+6}{7} \div \frac{(4 \times 5)+3}{4}$

$= \frac{7+6}{7} \div \frac{20+3}{4} = \frac{13}{7} \div \frac{23}{4}$

$= \frac{13}{7} \times \frac{4}{23} = \boxed{\frac{52}{161}}$

Fraction Word Problems

1. A city planner has an $\frac{8}{9}$-acre plot of land to develop for the city. She will use the land to make separate sections that each have an area of $\frac{1}{4}$ acre for gardens. What is the greatest number of $\frac{1}{4}$-acre sections that can be made from the $\frac{8}{9}$-acre plot of land? Taking 8/9 of an acre and dividing it into 1/4 acre sections

$\frac{8}{9} \div \frac{1}{4} = \frac{8}{9} \times \frac{4}{1} = \frac{32}{9} = 3\frac{5}{9}$ So only 3 full $\frac{1}{4}$ acre sections

2. A number cube has side lengths of $1\frac{1}{4}$ inches. What is the volume, in cubic inches, of the number cube?

Volume of a cube = side × side × side $= 1\frac{1}{4} \times 1\frac{1}{4} \times 1\frac{1}{4} = \frac{5}{4} \times \frac{5}{4} \times \frac{5}{4}$

(All sides are the same length)

$= \frac{5 \times 5 \times 5}{4 \times 4 \times 4} = \frac{125}{64}$ or $1\frac{61}{64}$ in^3

3. Andrea buys $\frac{1}{4}$ kilogram of rice. This amount is $\frac{1}{6}$ the amount of rice she has at home. How many kilograms of rice does Andrea have at home?

$\frac{1}{4} \div \frac{1}{6} = \frac{1}{4} \times \frac{6}{1} = \frac{6}{4} = \frac{3}{2} = 1\frac{1}{2}$ kilograms of rice

4. Bruce's uncle is serving hamburgers and lemonade at a picnic. He will use $10\frac{2}{3}$ pounds of ground beef to make the hamburgers. Bruce's uncle grills each hamburger for $9\frac{1}{2}$ minutes. He grills each side of a hamburger for the same amount of time. Bruce's uncle has $13\frac{3}{4}$ liters of lemonade. He will pour all the lemonade into glasses so that each glass has $\frac{1}{4}$ liter of lemonade in it. Bruce's uncle writes the equation $13\frac{3}{4}g = \frac{1}{4}$ to calculate the number of glasses (g) needed.

A. What is the greatest number of $\frac{1}{3}$-pound hamburgers Bruce's uncle can make with the ground beef?

$10\frac{2}{3} \div \frac{1}{3} = \frac{32}{3} \times \frac{3}{1} =$ 32 hamburgers

B. How many minutes does Bruce's uncle grill each side of a hamburger? 2 sides of a hamb

$9\frac{1}{2} \div 2 = 9\frac{1}{2} \div \frac{2}{1} = \frac{19}{2} \times \frac{1}{2} = \frac{19}{4} =$ $4\frac{3}{4}$ minutes

C. Explain the error Bruce's uncle made. As part of your explanation, calculate the number of glasses needed.

Bruce's uncle should have used $\frac{1}{4}(g) = 13\frac{3}{4}$. He has $13\frac{3}{4}$ liters of lemonade. He would need to divide the total number by 1/4 liter to get the total number of glasses.

$\frac{1}{4}g = 13\frac{3}{4}$

$\div 1/4 \quad \div 1/4$

$g = 13\frac{3}{4} \div \frac{1}{4}$

$= \frac{55}{4} \div \frac{1}{4} = \frac{55}{4} \times \frac{4}{1} = \frac{55}{4} \times \frac{4}{1} = \frac{55}{1}$

= 55 glasses.

Adding/Subtracting decimals

1. 3.6 + 0.43

$$\begin{array}{r} 3.6 \\ +\,0.43 \end{array} \rightarrow \begin{array}{r} 3.60 \\ +\,0.43 \end{array}$$

$$\begin{array}{r} {\scriptstyle 1}\quad {\scriptstyle 5\ 10} \\ 3.60 \\ +\,0.43 \\ \hline 4.03 \end{array}$$

2. 7.13 + 3.6

$$\begin{array}{r} 7.13 \\ +\,3.6 \end{array} \rightarrow \begin{array}{r} 7.13 \\ +\,3.60 \\ \hline 10.73 \end{array}$$

3. 10.9 − 6.1

$$\begin{array}{r} 10.9 \\ -\,6.1 \\ \hline 4.8 \end{array}$$

4. 8.1 − 6.92

$$\begin{array}{r} 8.1 \\ -\,6.92 \end{array} \rightarrow \begin{array}{r} {\scriptstyle 0\ 10} \\ 8.\cancel{1}0 \\ -\,6.92 \\ \hline 8 \end{array} \rightarrow \begin{array}{r} {\scriptstyle 7\ 10\ 10} \\ 8.\cancel{1}\cancel{0} \\ -\,6.92 \\ \hline 1.18 \end{array}$$

5. 19.432 − 17.9

$$\begin{array}{r} {\scriptstyle 8\ 14} \\ 19.\cancel{4}32 \\ -\,17.900 \\ \hline 1.532 \end{array}$$

6. 17.17 − 1.81

$$\begin{array}{r} {\scriptstyle 6\ 11} \\ 17.\cancel{1}7 \\ -\,1.81 \\ \hline 15.36 \end{array}$$

7. 8.5 − 0.96

$$\begin{array}{r} 8.5 \\ -\,0.96 \end{array} \rightarrow \begin{array}{r} {\scriptstyle 4\ 10} \\ 8.\cancel{5}0 \\ -0.96 \\ \hline 4 \end{array} \rightarrow \begin{array}{r} {\scriptstyle 7\ 14\ 10} \\ 8.\cancel{5}\cancel{0} \\ -0.96 \\ \hline 7.54 \end{array}$$

8. 8.7 + 3.89 + 12.315

$$\begin{array}{r} 8.7 \\ 3.89 \\ +12.315 \end{array} \rightarrow \text{Reorder} \rightarrow \begin{array}{r} {\scriptstyle 1\ 1\ 1} \\ 12.315 \\ 8.700 \\ +\,3.890 \\ \hline 24.905 \end{array}$$

First

9. (10.4 + 3.46) − 5

$$\begin{array}{r} 10.40 \\ +\,3.46 \\ \hline 13.86 \end{array} \rightarrow \begin{array}{r} 13.86 \\ -\,5.00 \\ \hline 8.86 \end{array}$$

10. (13.643 + 12.001) − 15.54

$$\begin{array}{r} 13.643 \\ +\,12.001 \\ \hline 25.644 \end{array} \rightarrow \begin{array}{r} 25.644 \\ -15.540 \\ \hline 10.104 \end{array}$$

It doesn't matter what order you preform Multiplication

Decimals Multiplication and Division

1. 0.2×1.6

0.2×1.6 → Reorder → 1.6×0.2 (Two decimal places)

$16 \times 2 = 32$

0.32

2. 1.7×3.1

3.1×1.7

$217 + 310 = 527$

5.27

3. 5.5×4.87

4.87×5.5

$2435 + 24350 = 26785$

26.785

4. 44.72×8.1

44.72×8.1

$44720 + 357760 = 362232$

362.232

5. 5.928×1.6

5928×16

$35568 + 59280 = 94848$

9.4848

6. $4.356 \div 9$

$9 \overline{)4.356}$

0.484

-36

75

-72

36

-36

0

7. $4.4856 \div 2.8$

$2.8 \overline{)4.4856}$ → $28 \overline{)44.856}$

1.602

-28

168

-168

056

-56

0

8. $5.263 \div 0.5$

$0.5 \overline{)5.263}$ → $5 \overline{)52.630}$

10.526

Add in as many zeros as you need

-5

026

-25

13

-10

30

-30

0

9. $6.7346 \div 2.23$

$2.23 \overline{)6.7346}$ → $223 \overline{)673.460}$

3.02

-669

446

-446

0

10. $1.0109 \div 0.55$

$0.55 \overline{)1.0109}$ → $55 \overline{)101.090}$

1.838

-55

460

-440

209

-165

440

-440

0

Decimal Word Problems

11. Jane is making chocolate chip cookies for her school's bake sale. She needs one bag of chocolate chips to make 2 dozen cookies. A bag of chips costs $2.89. Jane is planning to make 8 dozen cookies. Write and Solve an expression that tells Jane how much it will cost for the chips to make the cookies?

$(8 \div 2) \times 2.89 = 4 \times 2.89 =$

2.89

$\times \quad 4$

$\$11.56$

12. Joey needs to travel 15 miles from Smithville to Clarksville and 5 miles from Clarksville to Elmwood. The table below shows two different taxicab companies' rates.

TAXICAB RATES

Sunshine Cab Co.	Flat rate: $5.00 + $1.00 for every 5 miles
Freedom Cab Co.	Flat rate: $2.50 + $0.50 for every mile over 10 miles

Joey will choose one of these four options:

1. Travel with Sunshine Cab Co. to Clarksville, then with Freedom Cab Co. to Elmwood.
   $5.00 + 1(3) + 2.50 + 0(0.50) = 8.00 + 2.50 = \$10.50$
2. Travel with Freedom Cab Co. to Clarksville, then with Sunshine Cab Co. to Elmwood.
   $2.50 + 0.5(5) + 5.00 + 1(1.00) = 2.50 + 2.50 + 5.00 + 1.00 = \$11.00$
3. Travel nonstop with Sunshine Cab Co. the entire way.
   20 miles $5.00 + 1.00(4) = 5.00 + 4.00 = \$9.00$
4. Travel nonstop with Freedom Cab Co. the entire way.
   $2.50 + 0.5(10) = 2.50 + 5.00 = \$7.50$

Which is the **least expensive** way for Joey to make the trip?

Travel non-stop with Freedom Cab Co.

Greatest Common Factor and Least Common Multiple

1. What is the GCF of 18 and 9?

18: 1, 2, 3, 6, (9) 18

9: 1, 3, (9)

GCF = 9

2. What is the GCF of 24 and 6?

24: 1, 2, 3, 4, (6) 8, 12, 24

6: 1, 2, 3, (6)

GCF: 6

3. What is the GCF of 10 and 30?

10: 1, 2, 5, (10)

30: 1, 2, 3, 5, 6, (10) 15, 30

GCF 10

4. What is the GCF of 5 and 44?

5: (1) 5

44: (1) 2, 4, 11, 22, 44

GCF: 1

5. What is the GCF of 15 and 75?

15: 1, 3, 5, (15)

75: 1, 3, 5, (15) 25, 75

GCF: 15

6. What is the GCF of 12 and 40?

12: 1, 2, 3, (4) 6, 12

40: 1, 2, (4) 5, 8, 10, 20, 40

GCF: 4

7. What is the GCF of 24 and 18?

24: 1, 2, 3, 4, (6) 8, 12, 24

18: 1, 2, 3, (6) 9, 18

GCF: 6

8. What is the GCF of 18 and 45?

18: 1, 2, 3, 6, (9) 18

45: 1, 3, 5, (9) 15, 45

GCF 9

9. What is the GCF of 36 and 90?

36: 1, 2, 3, 4, 6, 9, 12, (18) 36

90: 1, 2, 3, 5, 9, 10, (18) 30, 45, 90

GCF: 18

10. What is the GCF of 50 and 125?

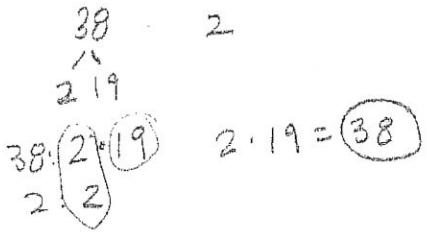
50: 1, 2, 5, 10, (25) 50

125: 1, 5, (25) 125

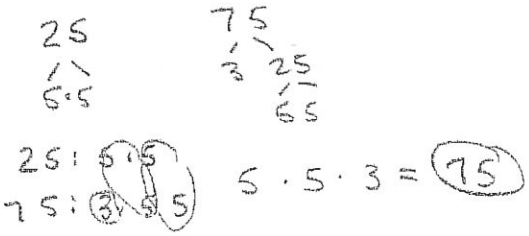
GCF: 25

use prime factorization

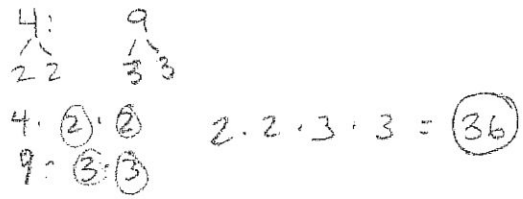
11. What is the LCM of 38 and 2?



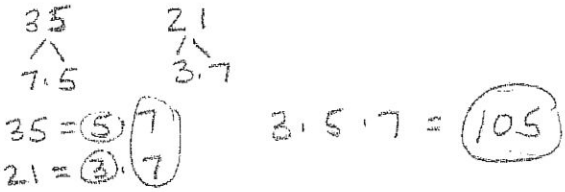
12. What is the LCM of 25 and 75?



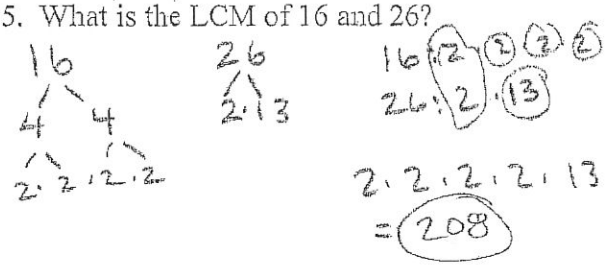
13. What is the LCM of 4 and 9



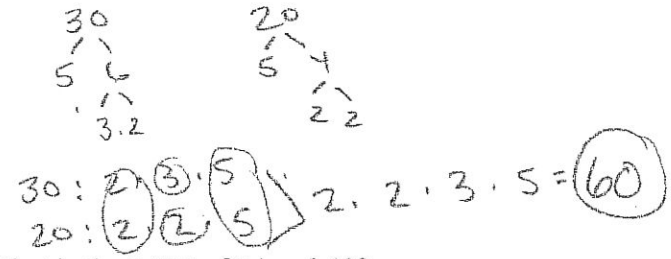
14. What is the LCM of 35 and 21?



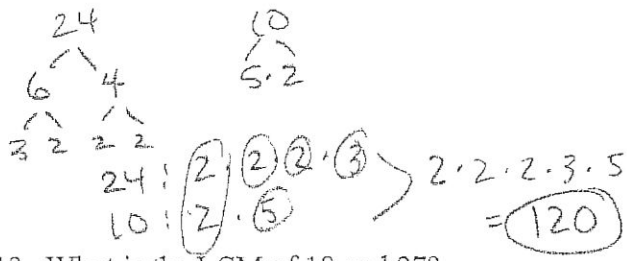
15. What is the LCM of 16 and 26?



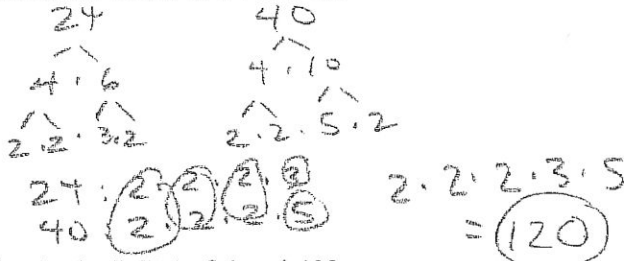
16. What is the LCM of 30 and 20?



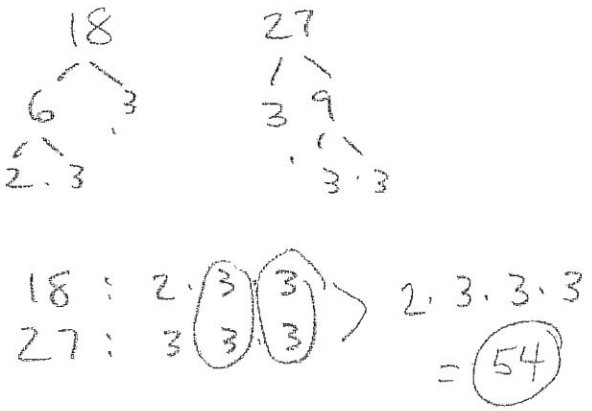
17. What is the LCM of 24 and 10?



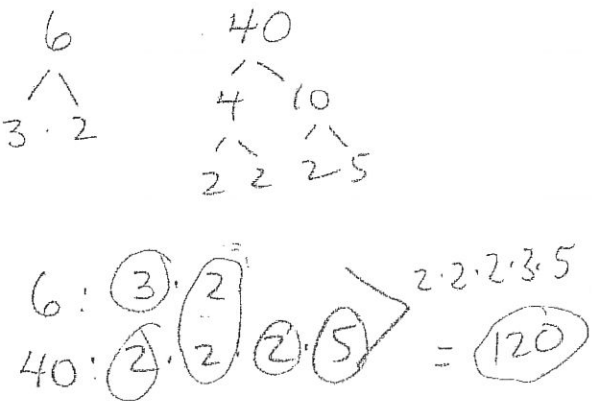
18. What is the LCM of 24 and 40?



19. What is the LCM of 18 and 27?



20. What is the LCM of 6 and 40?



The Distributive Property

1. $6(5-1) = 6\times5 - 6\times1$
$30 - 6 = 24$

2. $2(5+16) = 2(5) + 2(16)$
$= 10 + 32 = 42$

3. $8(4+3) = 8(4) + 8(3)$
$32 + 24 = 56$

4. $3(8+6) = 3(8) + 3(6)$
$= 24 + 18 = 42$

5. $14(10-2) = 14(10) - 14(2)$
$140 - 28 = 112$

6. $6(13-3) = 6(13) - 6(3)$
$78 - 18 = 60$

7. $6(7+11) = 6(7) + 6(11)$
$= 42 + 66 = 108$

8. $3(7+20) = 3(7) + 3(20)$
$= 21 + 60 = 81$

9. $6(1+11b) = 6(1) + 6(11b)$
$= 6 + 66b$

10. $10(a-5) = 10(a) - 10(5)$
$= 10a - 50$

11. $3(1+2v) = 3(1) + 3(2v)$
$3 + 6v$

12. $4(3x+2) = 4(3x) + 4(2)$
$= 12x + 8$

13. $(3-7k)\cdot 2 = 2(3-7k)$
$= 2(3) - 2(7k)$
$= 6 - 14k$

14. $20(8x+20) = 20(8x) + 20(20)$
$160x + 400$

15. $(7+6b)\cdot 15 = 15(7+6b)$
$= 15(7) + 15(6b)$
$105 + 90b$

16. $(2x+3)\cdot 14 = 14(2x+3)$
$= 14(2x) + 14(3)$
$28x + 42$

Evaluating Exponents

1. $2^3 = 2 \cdot 2 \cdot 2 = 8$

2. $10^3 = 10 \cdot 10 \cdot 10 = 1000$

3. $6^2 = 6 \cdot 6 = 36$

4. $3^4 = 3 \cdot 3 \cdot 3 \cdot 3 = 81$

5. $4^0 = 1$

Any base raised to the zero power equals 1

6. $12^2 = 12 \cdot 12 = 144$

7. $3^3 = 3 \cdot 3 \cdot 3 = 27$

8. $6^3 = 6 \cdot 6 \cdot 6 = 216$

9. $4^3 = 4 \cdot 4 \cdot 4 = 64$

10. $7^0 + 5^2 = 7^\circ + 5 \cdot 5 = 1 + 25 = 26$

11. $8^2 - 3^3 = 8 \cdot 8 - 3 \cdot 3 \cdot 3 = 64 - 27 = 37$

12. $2^3 - 12^0 = 2 \cdot 2 \cdot 2 - 12^\circ = 8 - 1 = 7$

13. $2^2 \cdot 2^3 = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 = 32$

14. $4^3 - 6^2 = 4 \cdot 4 \cdot 4 - 6 \cdot 6 = 64 - 36 = 28$

15. $2^4 \cdot 3^2 - 15^0 = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 - 15^\circ = (16)(9) - 1 = 144 - 1 = 143$

Solving One-Step Equations

1. $v - 10 = 9$

$+10 \quad +10$

$v = 19$

2. $v + 7 = 10$

$-7 \quad -7$

$v = 3$

3. $x - 3 = 4$

$+3 \quad +3$

$x = 7$

4. $\frac{x}{5} = 2$

$(5)\frac{x}{5} = 2(5)$

$x = 10$

5. $22 = 11k \rightarrow 11k = 22$

$\div 11 \quad \div 11$

$k = 2$

6. $13m = 377$

$\div 13 \quad \div 13$

$m = 29$

7. $40 = 5p \rightarrow 5p = 40$

$\div 5 \quad \div 5$

$p = 8$

8. $8 = p - 13 \rightarrow p - 13 = 8$

$+13 \quad +13$

$p = 21$

9. $198 = 22a \rightarrow 22a = 198$

$\div 22 \quad \div 22$

$a = 9$

10. $\frac{a}{29} = 5$

$(29)\frac{a}{29} = 5(29)$

$a = 145$

11. $x - 11 = 16$

$+11 \quad +11$

$x = 27$

12. $50 = x + 21 \rightarrow x + 21 = 50$

$-21 \quad -21$

$x = 29$

13. $13 + n = 29 \rightarrow n + 13 = 29$

$-13 \quad -13$

$n = 16$

14. $168 = 84n \rightarrow 84n = 168$

$\div 84 \quad \div 84$

$n = 2$

15. $\frac{x}{15} = 11$

$(15)\frac{x}{15} = 11(15)$

$x = 165$

16. $8k = 60$

$8k = 60$

$\div 8 \quad \div 8$

$k = \frac{60}{8} = \frac{15}{2} = 7\frac{1}{2}$

Left to Right

PE(MD)(AS)

Order of Operations

1. $(30-3)\div 3$

$27 \div 3 = 9$

2. $(21-5)\div 8$

$16 \div 8 = 2$

3. $1+7^2$

$1+7\cdot 7 = 1+49 = 50$

4. $5\times 4-8$

$5\times 4 - 8 = 20 - 8 = 12$

5. $8+6\times 9$

$8+6\times 9 = 8+54 = 62$

6. $3+15\times 5 = 3+75 = 78$

7. $9\times(3+3)\div 6$

$9\times 6 \div 6 = 54 \div 6$

$= 9$

8. $(9+18-3)\div 8$

$= (9+18-3)\div 8$

$= (27-3)\div 8$

$= 24 \div 8 = 3$

9. $9+6\div(8-2)$

$= 9+6\div 6$

$= 9+1 = 10$

10. $4(4\div 2+4)$

$= 4(2+4) = 4(6) = 24$

11. $(9\times 2)\div(2+1) = 18\div(2+1)$

$= 18\div 3 = 6$

12. $(4-1+8\div 8)\times 5$

$= (4-1+1)\times 5 = 4\times 5 = 20$

13. $(10\times 2)\div(1+1)$

$20 \div 2 = 10$

14. $7\times 9-7^2-3\times 4$

$7\times 9 - 49 - 3\times 4 = 63-49-12$

$= 14-12 = 2$

15. $8^2-1-(18-2)\div 8$

$64-1-16\div 8$

$64-1-2 = 63-2 = 61$

16. $(7+1)^2-4^2+12^0$

$(8)^2-4^2+12^0$

$= 64-16+1$

$= 48+1 = 49$