ANSWER PRESENTATION TOOL

1.

$$\begin{array}{r} {\scriptstyle 1\,1\,1} \\ 3963 \\ +\,2379 \\ \hline 6342 \end{array} \qquad \begin{array}{r} 4000 \\ +\,2000 \\ \hline 6000 \end{array}$$

Because $6000 \approx 6342$, the answer is reasonable.

2.

$$\begin{array}{r} {\scriptstyle 5\,11\,7\,14} \\ \cancel{6}\cancel{1}\cancel{8}\cancel{4} \\ -\,2348 \\ \hline 3836 \end{array} \qquad \begin{array}{r} 6000 \\ -\,2000 \\ \hline 4000 \end{array}$$

Because $4000 \approx 3836$, the answer is reasonable.

3.

$$\begin{array}{r} 184 \\ \times\,26 \\ \hline 1104 \\ 368 \\ \hline 4784 \end{array} \qquad \begin{array}{r} 200 \\ \times\,25 \\ \hline 5000 \end{array}$$

Because $5000 \approx 4784$, the answer is reasonable.

4.
$$\begin{array}{r} 9 \\ 23\overline{)207} \\ -\,207 \\ \hline 0 \end{array} \qquad \begin{array}{r} 10 \\ 20\overline{)200} \end{array}$$

Because $10 \approx 9$, the answer is reasonable.

5. $2^3 = 2 \bullet 2 \bullet 2 = 8$

6. $15^2 = 15 \bullet 15 = 225$

7. $5^4 = 5 \bullet 5 \bullet 5 \bullet 5 = 625$

8.
$$\begin{aligned} 11 \times 8 - 6 \div 2 &= 88 - 3 \\ &= 85 \end{aligned}$$

9.
$$\begin{aligned} 5 + 2^3 \div 4 - 2 &= 5 + 8 \div 4 - 2 \\ &= 5 + 2 - 2 \\ &= 7 - 2 \\ &= 5 \end{aligned}$$

10. $6 + 4(11 - 2) \div 3^2 = 6 + 4(9) \div 3^2$

$= 6 + 4(9) \div 9$

$= 6 + 36 \div 9$

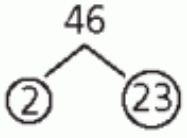
$= 6 + 4$

$= 10$

11. The factor pairs of 52 are 1 and 52, 2 and 26, and 4 and 13.

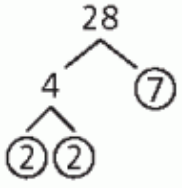
12. The factor pairs of 66 are 1 and 66, 2 and 33, 3 and 22, and 6 and 11.

13.



The prime factorization of 46 is $2 \bullet 23$.

14.



The prime factorization of 28 is $2 \bullet 2 \bullet 7$ or $2^2 \bullet 7$.

15. Factors of 24: 1, 2, 3, 4, 6, 8, 12, 24

Factors of 54: 1, 2, 3, 6, 9, 18, 27, 54

So, the GCF of 24 and 54 is 6.

16. Factors of 16: 1, 2, 4, 8, 16

Factors of 32: 1, 2, 4, 8, 16, 32

Factors of 72: 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72

So, the GCF of 16, 32, and 72 is 8.

17. $52 = 13 \bullet 2 \bullet 2$

$65 = 13 \bullet 5$

$\uparrow$

13

So, the GCF of 52 and 65 is 13.

18. $18 = 3 \bullet 3 \bullet 2$

$45 = 3 \bullet 3 \bullet 5$

$63 = 3 \bullet 3 \bullet 7$

$\uparrow \quad \uparrow$

$3 \bullet 3 = 9$

So, the GCF of 18, 45, and 63 is 9.

19. Multiples of 14: 14, 28, 42,…

Multiples of 21: 21, 42,…

So, the LCM of 14 and 21 is 42.

20. Multiples of 9: 9, 18, 27, 36, 45, 54, 63, 72,…

Multiples of 24: 24, 48, 72,…

So, the LCM of 9 and 24 is 72.

21. $26 = 2 \bullet 13$

$39 = 3 \bullet 13$

So, the LCM of 26 and 39 is $2 \bullet 3 \bullet 13 = 78$.

22. $6 = 2 \bullet 3$

$12 = 2 \bullet 2 \bullet 3$

$14 = 2 \bullet 7$

So, the LCM of 6, 12, and 14 is $2 \bullet 2 \bullet 3 \bullet 7 = 84$.

23. $16 = 2 \bullet 2 \bullet 2 \bullet 2$

$20 = 2 \bullet 2 \bullet 5$

$24 = 2 \bullet 2 \bullet 2 \bullet 3$

$\uparrow \quad \uparrow$

$2 \bullet 2 = 4$

The GCF of 16, 20, and 24 is 4. So the greatest number of bracelets you can make is 4.

24. $12 = 2 \bullet 2 \bullet 3$

$16 = 2 \bullet 2 \bullet 2 \bullet 2$

$2 \bullet 2 \bullet 2 \bullet 2 \bullet 3 = 48$

The LCM of 16 and 12 is 48. So, the least number of each color of marble that can be in the bag is 48.

25. $3\frac{3}{8} - 1\frac{1}{5} = \frac{27}{8} - \frac{6}{5}$

$$= \frac{27 \bullet 5}{8 \bullet 5} - \frac{6 \bullet 8}{5 \bullet 8}$$

$$= \frac{135}{40} - \frac{48}{40}$$

$$= \frac{87}{40}, \text{ or } 2\frac{7}{40}$$

You need to add $2\frac{7}{40}$ pounds to the right side to balance the scale.