

1. (a) Methods may vary; the answer is 1,084. (b) Methods may vary; the answer is 2,208.  
 (c) Methods may vary; the answer is 672. (d) Methods may vary; the quotient is 30, and the remainder is 3.

2.

4	<b>18</b>	8
<b>14</b>	10	6
<b>12</b>	2	16

3. (a) Ten thousands (b) Hundred thousands
4.  $129 + 73 = 202$
5. 10 6.  $(3 + 6) \times (2 - 1) = 9$  7.  $(3 + 6 - 2) \div 1 = 7$
8. (a)  $146 + \underline{561} + \underline{328} = 1,035$  (b)  $\underline{574} - 326 = \underline{248}$
9. (a) Any whole number 0, 1, 2, 3, 4, 5, . . . (b) 9
10.  $7 \times 4 + 7 \times 16$  11. 6 months
12. (a) 12 (b) 14 (c) 5 (d) 6 (e) 9 (f) 0
13. \$271 14. \$416
15. (a)  $642 \times 83 = 53,286$  (b)  $368 \times 24 = 8,832$
16. For (a) and (b), the quotient is 16 with a remainder of 16. Answers may vary on the repeated subtraction method, with this result.
17. (a)  $3^{24}$  (b)  $2^{11}$  (c)  $5^5$
18.  $2^{20}$ ; Answers may vary on the explanation, with  $2^{15} + 2^{15} = 2^{16}$  likely a part of the argument.
19. 1 20. \$10,950 21. \$1.60
22. 36 23. 3 24. \$6,000 for a group of 80 people
25. \$67.50 per monthly installment 26. Molly; 432 more calories
27. (a) 100,000 or 130,000 (b) 2,400 (c) 89,000
28. 34;

16	3	2	<b>13</b>
5	<b>10</b>	11	8
9	6	<b>7</b>	<b>12</b>
4	<b>15</b>	14	1

29. (a) 2515<sub>eight</sub> (b)  (c) 40,933  
 (d) 469 (e)  (f) 1,206






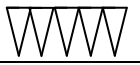

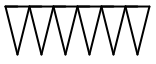

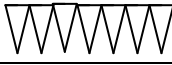










30. 1 block 2 flats 1 long 0 units



32. 11111010111<sub>two</sub>

33. (a) 212<sub>five</sub> (b) 10342<sub>five</sub>

34.

Hindu-Arabic	Babylonian	Egyptian	Mayan	Roman	Base Five	Base Two	Base Twelve
0	N/A	N/A		N/A	0	0	0
1			●	I	1	1	1
2			● ●	II	2	10	2
3			● ● ●	III	3	11	3
4			● ● ● ●	IV	4	100	4
5				V	10	101	5
6				VI	11	110	6
7				VII	12	111	7
8				VIII	13	1000	8
9				IX	14	1001	9
10	<	∩		X	20	1010	T
11		∩		XI	21	1011	E
12		∩		XII	22	1100	10

**Do your best! Rise to the challenge! Live and learn!**