Application & Enrichment Solutions

Application & Enrichment 1G
1. \(3 \times 4, 4 \times 3\), area = 12
2. \(3 \times 7, 7 \times 3\), area = 21
3. \(6 \times 10, 10 \times 6\), area = 60
4. three 4-bars, \(3 \times 4, 4 \times 3\)
5. four 3-bars, \(3 \times 4, 4 \times 3\)
6. two 6-bars, \(2 \times 6, 6 \times 2\)
7. yes

Application & Enrichment 2G
1. \(0 \times 7 = 0\)
2. \(1 \times 5 = 5\) pets
3. \(4, 4\), yes
4. \(4, 3\), no
5. \(0, 0\), yes
6. \(3, 4\), no
7. \(1 \times 4, 4 \times 1, (1)(4), (4)(1), 1 \cdot 4, 4 \cdot 1, 1 + 1 + 1 + 1 = 4\)

Application & Enrichment 4G
1. Friday
2. Tuesday
3. Monday and Wednesday
4. \(2 \times 8 = 16\) quarts

Across
1. product
3. quart
4. rectangle
6. factors

Down
1. pints
2. square
5. area

Application & Enrichment 5G
\(5 \times 10 = 50\) flies

Application & Enrichment 6G

Pictograph

<table>
<thead>
<tr>
<th></th>
<th>Aiden</th>
<th>Willow</th>
<th>Connor</th>
<th>Dani</th>
<th>Petra</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dani</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aiden</td>
<td></td>
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<td>Willow</td>
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<tr>
<td>Connor</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Dani</td>
<td></td>
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</tr>
</tbody>
</table>

1. Dani
2. Aiden, Conner
3. \(10 \times 6 = 60\)¢
4. 4 dimes
5. \(10 \times 3 = 30\)¢
6. Skip counting by ten gives 240¢. You may want to use real dimes and put them in piles to show that this is the same as $2.40.

Application & Enrichment 6G
Two fact circle pattern
Bottom row of chart:
0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20
1. 2 times
2. 5 sides
3. pentagon

Five fact circle pattern
Bottom row of chart:
0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50
The pattern is a single line.

Application & Enrichment 7G
1. \(2 \times 10 = 20\) sq ft
2. \(4 \times 5 = 20\) sq ft
3. \(1 \times 20 = 20\) sq ft
4. yes
**Pictograph**

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>ring</td>
<td></td>
</tr>
<tr>
<td>pencil</td>
<td></td>
</tr>
<tr>
<td>apple</td>
<td></td>
</tr>
<tr>
<td>toy car</td>
<td></td>
</tr>
<tr>
<td>crayons</td>
<td></td>
</tr>
<tr>
<td>ring</td>
<td></td>
</tr>
<tr>
<td>40¢</td>
<td></td>
</tr>
<tr>
<td>pencil</td>
<td></td>
</tr>
<tr>
<td>25¢ - 15¢ = 10¢</td>
<td></td>
</tr>
<tr>
<td>1. ring</td>
<td></td>
</tr>
<tr>
<td>2. 40¢</td>
<td></td>
</tr>
<tr>
<td>3. pencil</td>
<td></td>
</tr>
<tr>
<td>4. 25¢ - 15¢ = 10¢</td>
<td></td>
</tr>
<tr>
<td>5. Skip counting by five gives 160¢, You may want to use real nickels and put them in piles to show that this is the same as $1.60.</td>
<td></td>
</tr>
</tbody>
</table>

**Application & Enrichment 8G**

Students may use any letter they like for the unknown in the problem.

1. \(2X = 12\), \(X = 6\) boxes
2. \(5X = 15\), \(X = 3\) windows
3. \(2X = 18\), \(X = 9\) of whatever Rena made
4. \(10X = 80\), \(X = 8\) items

**Logic problems**

1. done
2. Hope - drawing
   Alana - piano
   Jared - juggling

**Application & Enrichment 9G**

9, 18, 27, 36 bugs

**Application & Enrichment 10G**

Nine fact circle pattern

Bottom row of chart:
0, 9, 18, 27, 36, 45, 54, 63, 72, 81, 90

1. 10 sides
   (A ten-sided shape is a decagon.)
2. counterclockwise

**Venn Diagram**

1. Region A only - 5, 15, 25, 35, 45
2. Region B only - 60, 70, 80, 90, 100
3. Overlap - 10, 20, 30, 40, 50; 5 numbers
4. 4 numbers

**Application & Enrichment 11G**

**Venn Diagram**

1. Region A only: 3, 6, 12, 15, 21, 24, 30
2. Region B only: 36, 45, 54, 63, 72, 81, 90
3. Overlap: 9, 18, 27; 3 numbers
4. 3 numbers

**Application & Enrichment 12G**

three fact circle pattern

Bottom row of chart:
0, 3, 6, 9, 12, 15, 18, 21, 24, 27, 30

1. star
2. 10 points

3, 6, 9, 12, 15, 18, 21 worms

**Application & Enrichment 13G**

1. \(9 \times 6 = 54\)
2. \(5 \times 6 = 30\)
3. \(3 \times 6 = 18\)
4. \(2 \times 6 = 12\)
Application & Enrichment 14G
six fact circle pattern
Bottom row of chart:
0, 6, 12, 18, 24, 30, 36, 42, 48, 54, 60
1. star
2. 5 points
6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72 nibbles

Application & Enrichment 15G
1. 12 numbers
2. 12 numbers
3. 8 numbers

Logic problems
1. Anna - horse ranch
   Emily - mountains
   James - beach
2. Alex - walked
   Jayna - bus
   Billy - rode in mom's car

Application & Enrichment 16G
four fact circle pattern
Bottom row of chart:
0, 4, 8, 12, 16, 20, 24, 28, 32, 36
1. star
2. 5 points
4, 8, 12, 16, 20, 24 dollars

Application & Enrichment 17G
5 × 5 = 25
5 + 5 + 5 + 5 + 5 = 25
1 + 3 + 5 + 7 + 9 = 25

Application & Enrichment 18G
seven fact circle pattern
Bottom row of chart:
0, 7, 14, 21, 28, 35, 42, 49, 56, 63, 70
1. star
2. 10 points
7, 14, 21, 28, 35, 42, 49, 56 days

Application & Enrichment 19G
1. 8, 16, 24, 32, 40, 48
2. 8, 16, 24, 32, 40, 48, 56, 64, 72
3. 8, 16, 24, 32, 40, 48, 56
4. 8, 16, 24, 32, 40, 48, 56
1. Friday
2. Sunday
3. 8, 16, 24, 32
4. 8, 16, 24, 32, 40, 48, 56
5. 0 + 3 + 4 + 6 + 2 + 7 + 5 = 27 gallons
6. 0 + 24 + 32 + 48 + 16 + 56 + 40 = 216 pints
   You may want to break the column addition in #5 and #6 into parts and then add the parts together.

Application & Enrichment 20G
eight fact circle pattern
Bottom row of chart:
0, 8, 16, 24, 32, 40, 48, 56, 64, 72, 80
1. 5
2. pentagon
8, 16, 24, 32, 40, 48, 56, 64 things
Application & Enrichment 21G
1. \( 20 + 6 = 26 \)
2. \( 60 + 3 = 63 \)
3. \( 60 + 4 = 64 \)

\[ 6 \times 6 = 36 \]
\[ 6 + 6 + 6 + 6 + 6 + 6 = 36 \]
\[ 1 + 3 + 5 + 7 + 9 + 11 = 36 \]

\[ 7 \times 7 = 49 \]
\[ 7 + 7 + 7 + 7 + 7 + 7 = 49 \]
\[ 1 + 3 + 5 + 7 + 9 + 11 + 13 = 49 \]

Application & Enrichment 22G
1. 1 room
2. 4 rooms
3. 8 rooms
4. 12 rooms
5. Write 12 in chart.
6. After week 1, the numbers of rooms skip count by 4. Bottom row of chart: 1, 8, 16, 24, 32, 40, 48.

Application & Enrichment 23G
1. \( 11 \times 23 = 253 \)
2. \( 11 \times 17 = 187 \)
3. \( 11 \times 34 = 374 \)
4. \( 11 \times 63 = 693 \)

1. 2 pt
2. 3 ft
3. 4 qt
4. 5 cents
5. 7 days
6. 8 legs
7. 24 pt
8. 39 ft
9. 44 qt
10. 70 days
11. 88 pt
12. 99 ft

Application & Enrichment 24G
1. 16
2. 24
3. 8 skip count pattern
4. Bottom row of chart: 1, 8, 16, 24, 32, 40, 48

Application & Enrichment 25G
Across
2. multiplier
4. ten thousands
5. product
7. hundreds
8. add
9. double

Down
1. thousands
2. multiplicand
3. unit
6. tens

Application & Enrichment 26G
Answers will vary.

1. 4, 8, 22
2. 10, 25, 40
3. 30, 50
4. 33, 51, 69
5. 36, 99, 108, 234

Application & Enrichment 27G
Across
3. dollar
4. ounces
6. two
7. feet
**Down**
1. gallon
2. tablespoon
3. dime
4. nickel

**Area**
1. \(15 \times 20 = 300\) sq ft
2. \(12 \times 30 = 360\) sq ft
3. \(300 + 300 + 360 = 960\) sq ft

**Application & Enrichment 28G**
1. 7 pounds
2. 23 pounds
3. \(23 - 7 = 16\) pounds
4. first half
5. \(16 \times 18 = 288\) ounces

1. 5 lb
2. Rose
3. \(2 \times 45 = 90\) lb; Seth
4. \(130 + 30 = 160\) lb
5. \(160 < 165\); no
6. \(130 + 90 = 220\) lb; \(220 > 165\) lb

**Application & Enrichment 29G**
1. There are three quadrilaterals (4 sides).
2. The square is included as a kind of rectangle.
3. The figure on the bottom right is the square.
4. The figure should have four sides, and no more than two right angles.

1. quadrilateral, rhombus
2. quadrilateral rectangle
3. quadrilateral
4. quadrilateral, rhombus, square
5. Answers will vary.

**Application & Enrichment 30G**

1. 3:25
2. 3:40
3. 10:10
4. 10:50

1. 4:13
2. 4:36
3. 9:05
4. 9:21

**Application & Enrichment A1**
1. \(8:35 + :15 = 8:50\)
2. \(5:55 - :45 = 5:10\)
3. \(3:10 + :35 = 3:45\)
4. \(7:37 - :17 = 7:20\)

**Line Plot: Various results**

**Application & Enrichment B1**

**Word Problems**
1. \(5 \times 2 = 10\) liters
2. \(27 + 5 = 32\) kilograms
3. about 342 grams
4. There are 4 quarts in a gallon, so she should buy 4 liters of gasoline for each gallon she wants.
5. grams
   kilograms
6. $25 + 25 + 25 + 25 = 100 \text{ cm}$