




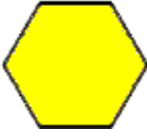

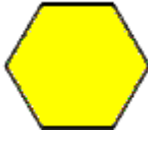

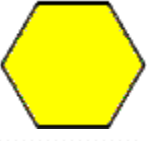


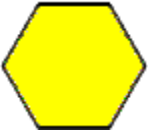



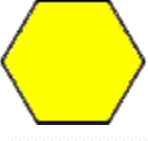





Teacher's Notes: Tasks with answers

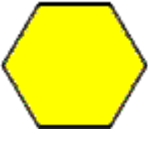


Task 2. Determining the Relations. Answer the following questions.

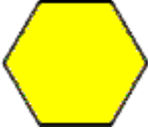






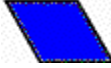
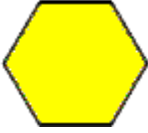


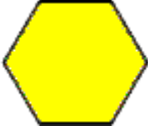



1. How many  are in  ? Answer: 2
2. How many  are in  ? Answer: 3
3. How many  are in  ? Answer: 2
4. How many  are in  ? Answer: 6
5. How many  are in  ? Answer: 3
6. How many  are in  ? Answer: 1 1/2

Based on these relationships, Calculate the shapes.



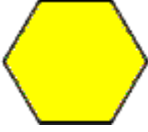
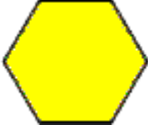





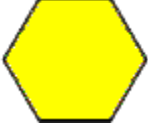


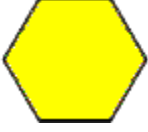
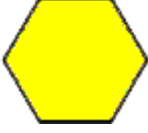


7. If  = 1,  = \_\_\_\_ . Answer: 1/6
8. If  = 1,  = \_\_\_\_ . Answer: 1/3
9. If  = 1,  = \_\_\_\_ . Answer: 1/2
10. If  = 1,  = \_\_\_\_ . Answer: 2/3

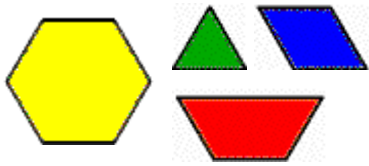
Task 3. Let's do some *really* fun ones. Calculate the shapes.

1. If  +  = 1, what is ? Answer: 1/9

2. If  +  = 1, what is  + ? **Answer: 2/8 or 1/4**
3. If  +  = 1, what is  + ? **Answer: 4**
4. If  +  = 1, what is ? **Answer: 3/7**
5. If  -  = 1, what is  + ? **Answer: 1**
- 

**Task 4. These are a challenge, but fun to figure out!**

1. If  +  = 2/3, what is ? **Answer:**
2. If  +  = 4/5, what is  + ? **Answer:**
3. If  +  = 3/4, what is ? **Answer:**
4. If  +  = 5/8, what is ? **Answer:**
5. If  -  = 1 1/3, what is ? **Answer:**
-

**Task 5. Multiple Choice**1. Answer: C.  $\frac{1}{3}$ 2. Answer: B.  $\frac{1}{4}$ 3. Answer: B.  $\frac{1}{4}$ 4. Answer: A.  $\frac{1}{6}$ **Task 6. Homework**

1. Answer: D

$$\frac{5}{12} - \frac{1}{12} = \frac{4}{12} \text{ Which can be simplified by dividing top and bottom by 4: } \frac{1}{3}$$

2. Answer: D

$$\text{So } \frac{7}{12} - \frac{3}{8} = \frac{14}{24} - \frac{9}{24} = \frac{5}{24}$$

3. Answer: A

$$\frac{3}{5} = \frac{3 \times 2}{5 \times 2} = \frac{6}{10}$$

$$\frac{9}{10} = \frac{9}{10} \quad \frac{9}{10} - \frac{3}{5} = \frac{9}{10} - \frac{6}{10} = \frac{3}{10}$$

4. Answer: C

$$\frac{5}{12} = \frac{5 \times 3}{12 \times 3} = \frac{15}{36}$$

$$\frac{8}{9} = \frac{8 \times 4}{9 \times 4} = \frac{32}{36} \quad \frac{8}{9} - \frac{5}{12} = \frac{32}{36} - \frac{15}{36} = \frac{17}{36}$$

5. Answer: B

$$\frac{8}{15} = \frac{8 \times 2}{15 \times 2} = \frac{16}{30}$$

$$\frac{5}{6} = \frac{5 \times 5}{6 \times 5} = \frac{25}{30} \quad \frac{5}{6} - \frac{8}{15} = \frac{25}{30} - \frac{16}{30} = \frac{9}{30} \text{ So } \frac{9}{30} = \frac{3}{10}$$

6. Answer: A

$$\frac{7}{24} = \frac{7 \times 5}{24 \times 5} = \frac{35}{120}$$

$$\frac{13}{15} = \frac{13 \times 8}{15 \times 8} = \frac{104}{120} \quad \frac{13}{15} - \frac{7}{24} = \frac{104}{120} - \frac{35}{120} = \frac{69}{120} \text{ So } \frac{69}{120} = \frac{23}{40}$$

**7. Answer: D**

$$1\frac{5}{12} = \frac{17}{12}$$

$$\frac{17}{12} = \frac{17 \times 3}{12 \times 3} = \frac{51}{36}$$

$$\frac{25}{36} = \frac{25}{36} \quad 1\frac{5}{12} - \frac{25}{36} = \frac{17}{12} - \frac{25}{36} = \frac{51}{36} - \frac{25}{36} = \frac{26}{36} \quad \text{So } \frac{26}{36} = \frac{13}{18}$$

**8. Answer: A**

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

$$\frac{5}{3} = \frac{5 \times 4}{3 \times 4} = \frac{20}{12}$$

$$\frac{3}{4} = \frac{3 \times 3}{4 \times 3} = \frac{9}{12}$$

$$1\frac{2}{3} - \frac{3}{4} = \frac{5}{3} - \frac{3}{4} = \frac{20}{12} - \frac{9}{12} = \frac{11}{12}$$

**9. Answer: B**

First change  $1\frac{3}{8}$  and  $2\frac{1}{2}$  to improper fractions:

$$1\frac{3}{8} = \frac{11}{8}$$

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

$$\frac{11}{8} = \frac{11}{8}$$

$$\frac{5}{2} = \frac{5 \times 4}{2 \times 4} = \frac{20}{8} \quad 2\frac{1}{2} - 1\frac{3}{8} = \frac{5}{2} - \frac{11}{8} = \frac{20}{8} - \frac{11}{8} = \frac{9}{8} = 1\frac{1}{8}$$

**10. Answer: B**

$$\frac{2}{3} = \frac{2 \times 8}{3 \times 8} = \frac{16}{24}$$

$$\frac{3}{8} = \frac{3 \times 3}{8 \times 3} = \frac{9}{24}$$

$$\frac{1}{2} = \frac{1 \times 12}{2 \times 12} = \frac{6}{24}$$

$$\frac{2}{3} - \frac{3}{8} - \frac{1}{2} = \frac{16}{24} - \frac{9}{24} - \frac{6}{24} = \frac{16 - 9 - 6}{24} = \frac{1}{24}$$

