Activity 1

Write the missing numbers in the patterns on your paper. Use the letters to label your answers.

1. 16, 15, __(a)__, 13, 12, __(b)__, 10, __(c)__

2. 1, 3, 5, __(d)__, 9, 11, 13, __(e)__, 17, 19, __(f)__

3. __(g)__, 160, 150, 140, __(h)__, 120, __(i)__, 100, 90

4. 8, 13, 18, 23, __(j)__, __(k)__, 38, 43, 48, __(l)__

5. __(m)__, 70, __(n)__, 60, 55, 50, 45, __(o)__, 35, 30

Activity 2

Look at the algebraic pattern. Find the visual pattern that matches. The variable _n_ represents the box number.

1. $2 \cdot n$

(a)

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6
OO	OO OO	OOO OOO	OOOO OOOO	OOOOO OOOOO	OOOOOO OOOOOO

(b)

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6
O	OO	OOO	OOOO	OOOOO	OOOOOO

(c)

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6
OO	OO O	OO OO	OOO OO	OOO OOO	OOOO OOO

2. $n \cdot 4$

(a)

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6
○○○○ ○○○○	○○○○ ○○	○○○○ ○	○○○○	○○○	○○

(b)

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6
○○○○	○○	○○○○	○○	○○○○	○○

(c)

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6
○○○○	○○○○ ○○○○	○○○○ ○○○○ ○○○○	○○○○ ○○○○ ○○○○ ○○○○	○○○○ ○○○○ ○○○○ ○○○○ ○○○○	○○○○ ○○○○ ○○○○ ○○○○ ○○○○ ○○○○

3. $5 \cdot n$

(a)

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6
○	○○	○○○	○○○○	○○○○○	○○○○○○

(b)

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6
○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○ ○○○○○

(c)

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6
○○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○ ○○○○○	○○○○○ ○○○○○ ○○○○○ ○○○○○	○○○○○ ○○○○○ ○○○○○ ○○○○○ ○○○○○	○○○○○ ○○○○○ ○○○○○ ○○○○○ ○○○○○ ○○○○○

Activity 3

Write the different ratios for each of the problems.

Model There are 15 girls in the class out of a total 27 students.

Answer:

Girls : Class 15 : 27

Boys : Class 12 : 27

Girls : Boys 15 : 12

1. There are 30 students on the varsity soccer team. They are all juniors or seniors. There are 22 seniors.

2. Of the 100 people at the rally, 55 of them are women.

3. The baseball team plays 40 games during its season. The team won 27 of its games.

Activity 4 • Distributed Practice

Solve.

1. $\frac{4}{5} + \frac{2}{9} = a$

2. $1.75 + 2.39 = b$

3. $4.2 \cdot 3 = c$

4. $\frac{3}{8} \div \frac{1}{4} = d$

5. Write the decimal number 0.20 as a percent.

6. Write the fraction $\frac{2}{4}$ as a decimal number.

7. Write 75% as a fraction.

8. Write the fraction $\frac{1}{4}$ as a percent.