Unit 1: Patterns and Relations
Extra Practice Lesson 1.1 – 1.3

1. Write a statement for each of the following expression.
2. 9 + 6n \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. $\frac{n}{8}$ – 2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. 15 – n \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. 10n – 4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Write an expression for each statement.
7. Three more than five times a number. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. A number divided by ten minus eight. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. A number less than fifteen. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. A number multiplied by nine. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
11. Identify the numerical coefficient, the constant term and the variable of each expression.
12. 9n – 7
Numerical Coefficient \_\_\_\_\_\_\_\_\_\_\_\_\_ Variable\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Constant Term \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
13. $\frac{10}{n}$ + 8

Numerical Coefficient \_\_\_\_\_\_\_\_\_\_\_\_\_ Variable \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Constant Term \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. n – 10

Numerical Coefficient \_\_\_\_\_\_\_\_\_\_\_\_\_ Variable \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Constant Term \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Solve the following expressions where n = 5. Show all the steps.
2. 6n + 9 = b) $\frac{15}{n}$ – 2 = c) 20 – 3n = d)30 – 2n
3. a) Abdallah works 10 hours a week. Write an expression for his earnings.
4. Abdallah makes $15 per hour that he works. How much money does he make in one week?
5. Abdallah wants to make $200. How many weeks does he need to work if he continues to work 10 hours per week?
6. Ahmed has 20 chocolate bars. He wants to share the chocolate bars evenly with his friends. How many chocolate bars will each friend receive if:
7. Ahmed has 10 friends?
8. Ahmed has 5 friends?
9. Fill in the Venn Diagram with the following numbers.

7, 18, 24, 29, 36, 122, 140, 150, 199, 210, 245, 320

 **Divisible By 5**   **Divisible By 2**

1. Fill in the Carrol Diagram with the following numbers:
14, 25, 33, 52, 58, 64, 87, 99, 100, 102, 110

|  |  |  |
| --- | --- | --- |
|  | Divisible by 2 | Not divisible by 2 |
| Divisible by 3 |  |  |
| Not divisible by 3 |  |  |