

Section 1.1 – Expressions and Symbols

Problem Set 2

Convert each of the following English expressions to a mathematical expression and simplify it.

- the product of four and three
- seven more than eighteen
- twelve less than twenty-two
- five more than ninety-one
- three times eleven
- the quotient of seven and three
- the product of six and seven increased by one
- five less than forty
- the quotient of three and the difference of two and one
- three more than the difference of five and two
- five more than the product of four and eighty-two
- eight more than the quotient of twenty and four
- the quotient of twelve and four
- eighteen less than the quotient of six and two

Convert each of the following scenarios into a mathematical expression and simplify it to answer the question.

- Mark saved \$20 one week and \$42 the next. How much money did he save all together?
- Joan has four more than twice as many coins as Lucy. If Lucy has twelve coins, how many does Joan have?
- It takes John 3.5 hours to travel between two cities. If it takes Mark half that time, how long does it take him?
- The closest the moon gets to the Earth is approximately 357,200 km. The farthest that it gets is approximately 406,550 km. How much, approximately, does the distance between the Earth and the moon vary?
- A window is to be 5' long by 4' tall. If the area of the window is equal to its length times its height then what is the window's area?

Convert each mathematical expression to an English expression

- $15 + 122$
- $14 - 6 + 1$
- $19 - 4$
- $7 - 1$
- $3 + 21 / 7$
- $4 - 1 / 8$
- $2 \cdot 4 + 3$
- $21 / 3 + 121 / 11$
- $2 / 5 + 1$

Put the appropriate symbol, = or \neq , in the blank.

- $14 + 1$ _____ $30 / 2$
- $12 + 1 - 2$ _____ $4 + 1 - 3$
- $6 + 1$ _____ $7 - 1$
- $5 + 1$ _____ $5 + 3$
- $18 + 2 / 2$ _____ $38 / 2$
- $4(1 + 3)$ _____ $20 / 5 + 12$

Simplify the following expressions.

- $(14 + 1) + (3 - 2)$
- $-2((1 - 1) + 6)$
- $(3 + 3) - 3$
- $2(4 + 3) - 2(4 + 1)$
- $\frac{5+5}{10}$
- $8(4 + 1)$
- $\frac{22(4-1)}{2(2+1)}$
- $2[1(1-5) - 3(4+5/5)]$
- $\frac{3(12-2)}{3 \cdot 5} + 4$