Basic Equations
with Addition, Subtraction, and Multiplication

Find the value of \( x \). Show your work.

a. \( 3x = 7 + 14 \)  
b. \( 40 + 22 + 10 = 9x \)

e. \( 12x = 6 \cdot 8 \)  
f. \( 78 - 28 = 10x \)

g. \( 23 + x = 16 \cdot 4 \)  
h. \( 6x = 25 + 20 + 9 \)

i. \( 7x = 63 - 21 \)  
j. \( x + 12 = 9 \cdot 3 \)

★ Challenge:

The product of 7 and \( x \) is the same as the sum of nine and three and two. What is the value of \( x \)?
Find the value of $x$. Show your work.

a. $3x = 7 + 14$
   \[ x = 7 \]

b. $40 + 22 + 10 = 9x$
   \[ x = 8 \]

c. $7 \times 8 = x - 4$

\[ x = 60 \]

d. $x + 35 = 20 \times 2$
   \[ x = 5 \]

e. $12x = 6 \times 8$

\[ x = 4 \]

f. $78 - 28 = 10x$
   \[ x = 4 \]

g. $23 + x = 16 \times 4$

\[ x = 41 \]

h. $6x = 25 + 20 + 9$
   \[ x = 9 \]

i. $7x = 63 - 21$
   \[ x = 6 \]

j. $x + 12 = 9 \times 3$
   \[ x = 15 \]

**Challenge:**
The product of 7 and $x$ is the same as the sum of nine and three and two. What is the value of $x$?
   \[ x = 2 \]