Translate from English to an algebraic expression or equation, whichever is appropriate. Let the variable x represent the number.

- 1) $\frac{1}{6}$ of a number, decreased by 7, is 37.
- 2) $\frac{1}{3}$ of a number, decreased by 8, is 34.
- 3) $\frac{1}{4}$ of a number, decreased by 8, is 25.
- 4) $\frac{1}{6}$ of a number, decreased by 4, is 32.
- 5) $\frac{1}{6}$ times a number increased by 4 is 3.
- 6) $\frac{1}{5}$ of a number increased by 4 is 4.
- 7) Seven subtracted from the product of 6 and 5 less than a number

- 8) Eight subtracted from the product of 8 and 4 less than a number
- 9) $\frac{1}{5}$ of a number, decreased by 5, is 21.
- 10) Eight subtracted from the product of 7 and 4 less than a number
- 11) $\frac{1}{6}$ of a number decreased by 7, is 37.
- 12) $\frac{1}{6}$ of a number increased by 2 is 1.
- 13) $\frac{1}{4}$ of a number, decreased by 5, is 26.
- 14) $\frac{1}{7}$ of a number decreased by 2 is 4.

Let x represent the number. Write the English phrase as an algebraic expression. 15) The product of 16 and a number, added to 7.	24) Two times a number decreased by one-eighth of the same number.
16) The product of 7 and a number, added to 4.	25) Nine times a number, decreased by 56.
17) The product of 13 and a number, added to 17.	26) The quotient of 32 and the product of a number and –5.
18) Three times a number, decreased by 58.	27) The quotient of 69 and the product of a number and –5.
19) The quotient of 74 and the product of a number and –7.	28) The product of –26 and the sum of a number and 16.
20) The quotient of 71 and the product of a number and –6.	29) Three times the sum of a number and -43.
21) The product of –23 and the sum of a number and 36.	30) Seven times the sum of a number and -24.
22) Five times the sum of a number and –18.	31) The quotient of 31 times a number and –5.
23) The quotient of 32 times a number and -3.	32) Eight times a number decreased by three-fourths of the same number.

Answer Key

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1)
$$\frac{1}{6}$$
x - 7 = 37

$$2) \frac{1}{3}x - 8 = 34$$

$$3) \frac{1}{4}x - 8 = 25$$

$$4) \frac{1}{6}x - 4 = 32$$

$$5) \frac{1}{6}(x+4) = 3$$

$$6) \frac{1}{5}(x+4) = 4$$

7)
$$6(x-5)-7$$

8)
$$8(x-4)-8$$

9)
$$\frac{1}{5}$$
x - 5 = 21

10)
$$7(x-4) - 8$$

11)
$$\frac{1}{6}$$
x - 7 = 37

12)
$$\frac{1}{6}$$
(x + 2) = 1

$$13)\,\frac{1}{4}x - 5 = 26$$

$$14)\,\frac{1}{7}(x-2)=4$$

15)
$$7 + 16x$$

$$16) 4 + 7x$$

17)
$$17 + 13x$$

18)
$$3x - 58$$

19)
$$\frac{74}{-7x}$$

20)
$$\frac{71}{-6x}$$

21)
$$-23(x + 36)$$

22)
$$5(x + (-18))$$

23)
$$\frac{32x}{-3}$$

24)
$$2x - \frac{x}{8}$$

26)
$$\frac{32}{-5x}$$

27)
$$\frac{69}{-5x}$$

28)
$$-26(x + 16)$$

29)
$$3(x + (-43))$$

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30)
$$7(x + (-24))$$

30)
$$7(x + (-24))$$

31) $\frac{31x}{-5}$

32)
$$8x - \frac{3x}{4}$$