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 5, is 24.
- 2) $\frac{1}{5}$ of a number, decreased by 8, is 22.
- 3) $\frac{1}{6}$ of a number, decreased by 7, is 32.
- 4) $\frac{1}{4}$ of a number, decreased by 5, is 23.
- 5) $\frac{1}{6}$ times a number increased by 5 is 4.
- 6) $\frac{1}{5}$ of a number increased by 4 is 2.
- 7) Seven subtracted from the product of 5 and 3 less than a number

- 8) Seven subtracted from the product of 5 and 4 less than a number
- 9) $\frac{1}{3}$ of a number, decreased by 4, is 33.
- 10) Eight subtracted from the product of 8 and 2 less than a number
- 11) $\frac{1}{6}$ of a number decreased by 7, is 39.
- 12) $\frac{1}{4}$ of a number increased by 4 is 3.
- 13) $\frac{1}{5}$ of a number, decreased by 5, is 29.
- 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 14 and a number, added to 17.	24) Three times a number decreased by one–third of the same number.
16) The product of 2 and a number, added to 15.	25) Twice a number, decreased by 19.
17) The product of 3 and a number, added to 12.	26) The quotient of 70 and the product of a number and –5.
18) Three times a number, decreased by 61.	27) The quotient of 55 and the product of a number and -9.
19) The quotient of 71 and the product of a number and -5.	28) The product of –9 and the sum of a number and 17.
20) The quotient of 34 and the product of a number and -4.	29) Eight times the sum of a number and -49.
21) The product of –16 and the sum of a number and 28.	30) Eight times the sum of a number and -43.
22) Twice the sum of a number and –50.	31) The quotient of 15 times a number and –8.
23) The quotient of 17 times a number and –9.	32) Six times a number decreased by three-fourths of the same number.

Answer Key

Testname: 02.5V01B

1)
$$\frac{1}{6}$$
x - 5 = 24

$$2) \frac{1}{5} x - 8 = 22$$

3)
$$\frac{1}{6}$$
x - 7 = 32

4)
$$\frac{1}{4}$$
x - 5 = 23

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

$$6) \frac{1}{5}(x+4) = 2$$

7)
$$5(x-3)-7$$

8)
$$5(x-4)-7$$

9)
$$\frac{1}{3}$$
x - 4 = 33

10)
$$8(x-2) - 8$$

$$11) \frac{1}{6} x - 7 = 39$$

$$12)\,\frac{1}{4}(x+4) = 3$$

13)
$$\frac{1}{5}$$
x - 5 = 29

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

15)
$$17 + 14x$$

16)
$$15 + 2x$$

17)
$$12 + 3x$$

19)
$$\frac{71}{-5x}$$

20)
$$\frac{34}{-4x}$$

21)
$$-16(x + 28)$$

22)
$$2(x + (-50))$$

23)
$$\frac{17x}{-9}$$

24)
$$3x - \frac{x}{3}$$

26)
$$\frac{70}{-5x}$$

27)
$$\frac{55}{-9x}$$

28)
$$-9(x + 17)$$

29)
$$8(x + (-49))$$

Answer Key Testname: 02.5V01B

- 30) 8(x + (-43))31) $\frac{15x}{-8}$
- 32) $6x \frac{3x}{4}$