Chapter Nine.
Equations.

Exercise 9A.
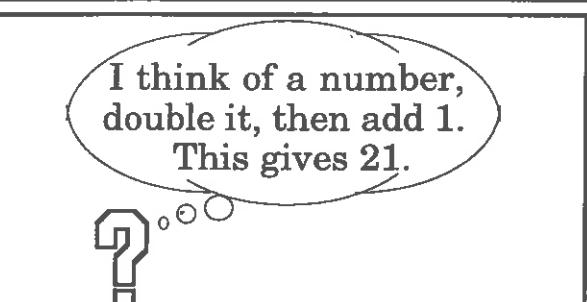
For each of the following find what "the number I think of" must be.
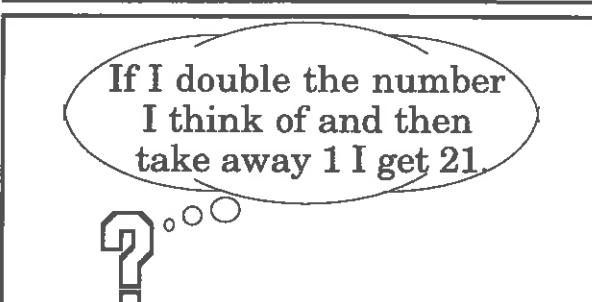
1.
I think of a number, halve it and end up with 10.
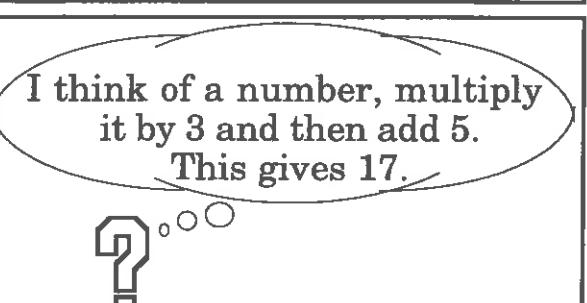
2.
I think of a number, multiply it by 5 and get an answer of 30.
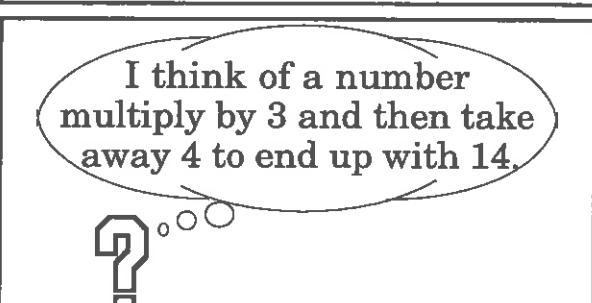
3.
I think of a number, double it, then add 1. This gives 21.
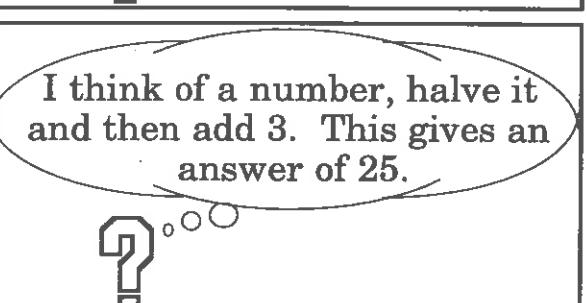
4.
If I double the number I think of and then take away 1 I get 21.
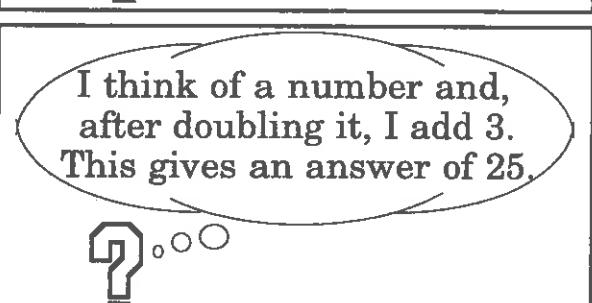
5.
I think of a number, multiply it by 3 and then add 5. This gives 17.
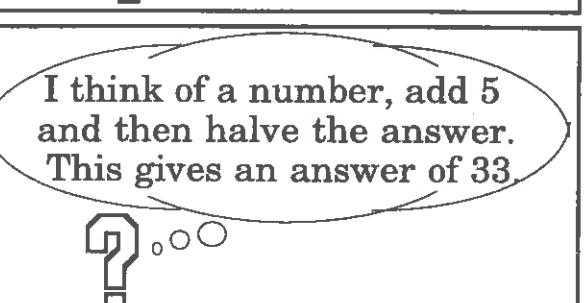
6.
I think of a number multiply by 3 and then take away 4 to end up with 14.
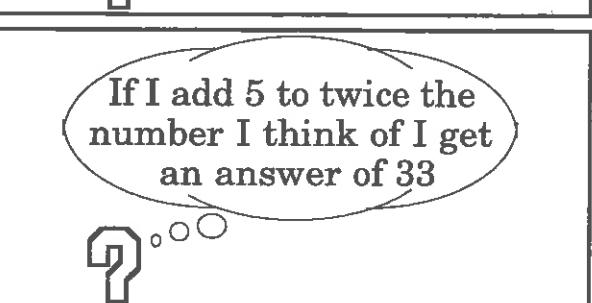
7.
I think of a number, halve it and then add 3. This gives an answer of 25.

8.
I think of a number and, after doubling it, I add 3. This gives an answer of 25.

9.
I think of a number, add 5 and then halve the answer. This gives an answer of 33.

10.
If I add 5 to twice the number I think of I get an answer of 33

N 7.4: .... choose appropriate operations ....
A 19.5: Finds numbers .... that satisfy a single constraint given in words. ....

Exercise 9B

1. If x represents some number which of the following must be twice x?

   (a) $x + 2$ (b) $2 - x$ (c) $2x$ (d) $x \div 2$ (e) x^2

2. If n represents some number which of the following must be n multiplied by itself?

   (a) $n + 2$ (b) $2 - n$ (c) $2n$ (d) $n \div 2$ (e) n^2

3. If p represents a whole number which of the following must be the next whole number after p?

   (a) $p + p$ (b) $p + 1$ (c) $2p$ (d) $p - 1$ (e) $1p$

4. If m represents some number which of the following must be half of m?

   (a) $m + 0{\cdot}5$ (b) $m \div 0{\cdot}5$ (c) $m \times 0{\cdot}5$ (d) $0{\cdot}5m$ (e) $\dfrac{m}{2}$

5. If x represents some number which of the following must be four times x?

   (a) $4x$ (b) x^4 (c) $x + 4$ (d) $x - 4$ (e) $4 \div x$

6. If y represents some number which of the following is 6 less than y?

   (a) $y - 6$ (b) $6 - y$ (c) $6y$ (d) y (e) $y + 6$

7. If k represents some number which of the following is what is obtained when twice k is subtracted from 50?

   (a) $k + 50 - k$ (b) $50 - 2k$ (c) $2k - 50$ (d) $100k$ (e) $2k + 50$

8. If r represents some number which of the following must be 5 less than r?

   (a) $5 - r$ (b) $r - 5$ (c) $5r$ (d) $r + 5$ (e) $5 + r$

9. If p represents some number which of the following must exceed twice p, by 7?

   (a) $7 - 2p$ (b) $2p - 7$ (c) $2p + 7$ (d) $7p + 2$ (e) $7p^2$

10. If n represents some number which of the following must be twice n?

    (a) $0{\cdot}5\,n$ (b) $0{\cdot}5 + n$ (c) $\dfrac{n}{2}$ (d) $2n$ (e) $n \div 0{\cdot}5$

11. If y represents a particular number which of the following will be what is obtained by multiplying y by 3 and then adding 5?

    (a) $3(y + 5)$ (b) $15y$ (c) $y + 3 + 5$ (d) $3y + 5$ (e) $5(y + 3)$

12. If n represents a particular number which of the following will be what is obtained by adding 5 to n and then multiplying the answer by 3?

    (a) $3(n + 5)$ (b) $15n$ (c) $n + 3 + 5$ (d) $3n + 5$ (e) $5(n + 3)$

13. If x represents a particular even number the next even number after x will be:

    (a) $2x$ (b) $x + 1$ (c) $x - 1$ (d) $x - 2$ (e) $x + 2$

A 18b.5: Uses a letter to represent a variable quantity in an oral or written expression ....