

How did Mr Plant make 7 less odd?

e b i c g l o n j a

f s k w x p r u t q v d m h

Simplify

- a) $3x + 3x$
- b) $9x^2 - x^2$
- c) $x \times 8$
- d) $2x \times 3x$
- e) $3x^2 + 6x^2$
- f) $x^2 \times 6x$
- g) $8x^4 - 2x^4$
- h) $9x \div x$

Expand

- i) $4(x + 2)$
- j) $4(2x + 2)$
- k) $x(x + 4)$
- l) $x(x - 4)$
- m) $4(x + y)$
- n) $x(y + z)$
- o) $x^2(x + 4)$
- p) $4(2 - x)$

Factorise

- q) $5x + 10$
- r) $5x + 5$
- s) $5x + x^2$
- t) $10 + 2x$
- u) $x^2 - 5x$
- v) $x^2 + 5x$
- w) $x^2 + xy$
- x) $10 + 5x$

Answers

- | | | | | | |
|----------------------|----------------------|-------------------------|----------------------------|--------------------------|--------------------------|
| $6x \rightarrow Y$ | $8x \rightarrow O$ | $4x + 8 \rightarrow T$ | $x^2 + 4x \rightarrow S$ | $x(x + 5) \rightarrow T$ | $5(x + 2) \rightarrow E$ |
| $6x^2 \rightarrow T$ | $8x^2 \rightarrow E$ | $8 - 4x \rightarrow R$ | $x^3 + 4x^2 \rightarrow A$ | $x(x - 5) \rightarrow T$ | $5(x + 1) \rightarrow S$ |
| $6x^3 \rightarrow I$ | $9 \rightarrow R$ | $8x + 8 \rightarrow A$ | $x^2 - 4x \rightarrow K$ | $x(5 + x) \rightarrow T$ | $5(2 + x) \rightarrow I$ |
| $6x^4 \rightarrow O$ | $9x^2 \rightarrow H$ | $4x + 4y \rightarrow E$ | $xy + xz \rightarrow W$ | $x(x + y) \rightarrow F$ | $2(5 + x) \rightarrow L$ |

Why do rabbits not like to add repeatedly?

e b i c g l o n j a

f s k w x p r u t q v d m h

Calculate if $a = 3$ and $b = -2$

- a) $4a$
- b) a^3
- c) ab
- d) $2a + 3b$
- e) $(a + b)^2$
- f) $a - b$
- g) $2a^2$
- h) $-9b$

Write an expression for:

- i) three more than a number
- j) two less than a number
- k) six times a number
- l) a number times itself
- m) one more than two times a number
- n) two different numbers added
- o) six is added to a number, then doubled
- p) a number is doubled, then six is added

Solve

- q) $5x = 10$
- r) $x + 5 = 12$
- s) $5 = 2x$
- t) $10 = 2 + x$
- u) $x^2 = 16$
- v) $3x = -27$
- w) $x + 7 = 5$
- x) $2x + 3 = 5$

Answers

- | | | | | | |
|-----------------------|--------------------------|------------------------|------------------------|---------------------|-------------------------|
| $x - 2 \rightarrow E$ | $2(x + 6) \rightarrow E$ | $12 \rightarrow R$ | $-6 \rightarrow Y$ | $-18 \rightarrow N$ | $x = 2.5 \rightarrow U$ |
| $x = 1 \rightarrow I$ | $2x + 6 \rightarrow P$ | $27 \rightarrow H$ | $18 \rightarrow P$ | $n^2 \rightarrow R$ | $x = -2 \rightarrow T$ |
| $x = 4 \rightarrow I$ | $1 \rightarrow T$ | $a + b \rightarrow F$ | $x + 3 \rightarrow E$ | $6x \rightarrow L$ | $5 \rightarrow M$ |
| $x = 8 \rightarrow C$ | $x = 7 \rightarrow L$ | $2n + 1 \rightarrow O$ | $x = -9 \rightarrow T$ | $0 \rightarrow I$ | $x = 2 \rightarrow A$ |