

Name :

HB2.1

Question 1 Expand $3x(5x - 5)$	Question 2 Expand and simplify $(x - 1)(x - 3)$	Question 3 Factorise $45x - 27$	Question 4 Factorise fully $6x + 15x^2$
Question 5 Find the nth term: 2, 7, 12, 17,...	Question 6 If the nth term of a sequence is $7n + 6$ what is the 9th term?	Question 7 Divide 10500g in the ratio 3 : 11	Question 8 Divide 2100ml in the ratio 5 : 2
Question 9 Work out $3 \div 0.3 =$	Question 10 Work out $1.5 \div 0.3 =$	Question 11 Increase £330 by 15%	Question 12 Increase £140 by 30%
Question 13 Work out $1\frac{1}{5} \times 1\frac{1}{2}$	Question 14 Work out $1\frac{2}{5} \div \frac{1}{2}$	Question 15 Work out the value of $2x + 8y$ when $x = 7$ and $y = -4$	Question 16 Work out the value of $6x^2 + y$ when $x = -6$ and $y = 5$
Question 17 The mean of 16, x, 3, 14, 57 is 22. Find x	Question 18 The mean of 4, x, 5, 6, 1 is 5. Find x	Question 19 Solve $\frac{x}{3} + 10 = x + 2$	Question 20 Solve $\frac{x}{3} + 5 = x - 1$

SKILLS CHECK

Score

Name :

HB2.2

Question 1 Expand $2x(2x + 5)$	Question 2 Expand and simplify $(x - 2)(x - 2)$	Question 3 Factorise $30x - 18$	Question 4 Factorise fully $42x^3 + 6x$
Question 5 Find the nth term: 7, 10, 13, 16,...	Question 6 If the nth term of a sequence is $5n + 1$ what is the 12th term?	Question 7 Divide £6400 in the ratio 3 : 5	Question 8 Divide £12600 in the ratio 7 : 11
Question 9 Work out $18 \div 0.9 =$	Question 10 Work out $1.8 \div 0.3 =$	Question 11 Decrease £3680 by 15%	Question 12 Increase £470 by 30%
Question 13 Work out $1\frac{1}{5} \times \frac{1}{2}$	Question 14 Work out $2\frac{1}{4} \div \frac{1}{3}$	Question 15 Work out the value of $x + y^2$ when $x = 1$ and $y = 3$	Question 16 Work out the value of $3x + 5y$ when $x = -5$ and $y = 5$
Question 17 Find the median 16, 16, 5, 8, 23	Question 18 Find the median 19, 25, 7, 11, 11	Question 19 Solve $\frac{x}{2} - 2 = 2x - 11$	Question 20 Solve $\frac{x}{2} - 4 = 3x - 24$

SKILLS CHECK

Score

Name :

HB2.3

Question 1 Expand $2x(11x + 7)$	Question 2 Expand and simplify $(x + 4)(x + 2)$	Question 3 Factorise $27x - 15$	Question 4 Factorise fully $30x^2 + 20x^3$
Question 5 Find the nth term: 4, 7, 10, 13,...	Question 6 If the nth term of a sequence is $5n - 5$ what is the 5th term?	Question 7 Divide £1600 in the ratio 5 : 3	Question 8 Divide £1575 in the ratio 7 : 2
Question 9 Work out $6.3 \div 0.7 =$	Question 10 Work out $10.4 \div 0.8 =$	Question 11 Decrease £390 by 10%	Question 12 Increase £420 by 65%
Question 13 Work out $3\frac{2}{7} \times 1\frac{1}{2}$	Question 14 Work out $1\frac{1}{3} \div \frac{1}{2}$	Question 15 Work out the value of $x + y^2$ when $x = 1$ and $y = -2$	Question 16 Work out the value of $4x - 8y$ when $x = -2$ and $y = 2$
Question 17 The mean of 17, x, 10, 17, 51 is 21. Find x	Question 18 Find the median 1.2, 1.2, 1.2, 1.5, 1.6, 0.8	Question 19 Solve $\frac{x}{4} + 4 = x - 5$	Question 20 Solve $\frac{x}{3} + 4 = x - 6$

SKILLS CHECK

Score

Name :

HB2.4

Question 1 Expand $6x(2x - 11)$	Question 2 Expand and simplify $(x + 5)(x - 6)$	Question 3 Factorise $9x + 3$	Question 4 Factorise fully $77x^3 + 33x$
Question 5 Find the nth term: 7, 15, 23, 31,...	Question 6 If the nth term of a sequence is $11n + 6$ what is the 11th term?	Question 7 Divide 3300ml in the ratio 3 : 8	Question 8 Divide £450 in the ratio 1 : 2
Question 9 Work out $3.2 \div 0.4 =$	Question 10 Work out $8 \div 0.4 =$	Question 11 Increase £320 by 10%	Question 12 Decrease £710 by 50%
Question 13 Work out $3\frac{5}{7} \times 1\frac{1}{3}$	Question 14 Work out $1\frac{2}{3} \div 2\frac{1}{2}$	Question 15 Work out the value of $x^2 + y$ when $x = 6$ and $y = 3$	Question 16 Work out the value of $6x - y^2$ when $x = 6$ and $y = 6$
Question 17 Find the median 1.8, 1.4, 2.1, 1.9, 1.5, 1.8	Question 18 The mean of 18, x, 13, 12, 36 is 19. Find x	Question 19 Solve $\frac{x}{3} + 4 = x - 4$	Question 20 Solve $\frac{x}{3} + 3 = x - 7$

SKILLS CHECK

Score

Name :

HB2.5

Question 1 Expand $4x(5x - 2)$	Question 2 Expand and simplify $(x - 7)(x - 7)$	Question 3 Factorise $32x + 24$	Question 4 Factorise fully $35x^3 - 15x^4$
Question 5 Find the nth term: 16, 27, 38, 49,...	Question 6 If the nth term of a sequence is $8n$ what is the 8th term?	Question 7 Divide £8400 in the ratio 7 : 5	Question 8 Divide £24000 in the ratio 3 : 5
Question 9 Work out $4.5 \div 0.5 =$	Question 10 Work out $15.3 \div 0.9 =$	Question 11 Increase £460 by 5%	Question 12 Increase £530 by 35%
Question 13 Work out $1\frac{4}{5} \times \frac{1}{2}$	Question 14 Work out $1\frac{1}{4} \div 2\frac{1}{3}$	Question 15 Work out the value of $x + y^2$ when $x = -5$ and $y = 8$	Question 16 Work out the value of $5x - y^2$ when $x = -6$ and $y = -2$
Question 17 The mean of 3, x , 14, 11, 13 is 10. Find x	Question 18 The mean of 5, x , 10, 6, 12 is 9. Find x	Question 19 Solve $\frac{x}{4} + 1 = x - 11$	Question 20 Solve $\frac{x}{3} - 2 = 2x - 22$

SKILLS CHECK

Score

Name :

HB2.6

Question 1 Expand $2x(11 - 5x)$	Question 2 Expand and simplify $(x + 4)(x - 4)$	Question 3 Factorise $14x + 21$	Question 4 Factorise fully $30x^3 + 10x^4$
Question 5 Find the nth term: 3, 12, 21, 30,...	Question 6 If the nth term of a sequence is $9n$ what is the 6th term?	Question 7 Divide 3250g in the ratio 3 : 2	Question 8 Divide £900 in the ratio 7 : 5
Question 9 Work out $3.6 \div 0.2 =$	Question 10 Work out $20 \div 1 =$	Question 11 Decrease £500 by 10%	Question 12 Decrease £4470 by 30%
Question 13 Work out $1\frac{1}{3} \times 1\frac{1}{2}$	Question 14 Work out $2\frac{2}{3} \div 1\frac{1}{2}$	Question 15 Work out the value of $10 - xy$ when $x = -4$ and $y = 4$	Question 16 Work out the value of $7x - 5y$ when $x = -3$ and $y = 3$
Question 17 Find the median 23, 16, 15, 24, 11	Question 18 The mean of 18, x , 11, 3, 27 is 15. Find x	Question 19 Solve $\frac{x}{4} - 4 = x - 19$	Question 20 Solve $\frac{x}{2} + 4 = 3x - 21$

SKILLS CHECK

Score

Name :

HB2.7

Question 1 Expand $3x(11x + 2)$	Question 2 Expand and simplify $(x + 4)(x - 7)$	Question 3 Factorise $15x + 10$	Question 4 Factorise fully $x^2 + 5x$
Question 5 Find the nth term: 12, 19, 26, 33,...	Question 6 If the nth term of a sequence is $2n + 3$ what is the 7th term?	Question 7 Divide £4500 in the ratio 3 : 7	Question 8 Divide 2475ml in the ratio 3 : 8
Question 9 Work out $3.5 \div 0.7 =$	Question 10 Work out $5.6 \div 0.7 =$	Question 11 Decrease £4810 by 5%	Question 12 Decrease £3280 by 75%
Question 13 Work out $1\frac{1}{3} \times 1\frac{1}{2}$	Question 14 Work out $2\frac{2}{5} \div 1\frac{1}{2}$	Question 15 Work out the value of $2x + 3y$ when $x = -5$ and $y = -5$	Question 16 Work out the value of $x^2 + y$ when $x = 7$ and $y = 8$
Question 17 Find the median 22, 15, 12, 19, 18	Question 18 Find the median 0.5, 2.1, 1.4, 1.1, 2.4, 1.6	Question 19 Solve $\frac{x}{3} - 3 = x - 9$	Question 20 Solve $\frac{x}{4} - 2 = x - 8$

SKILLS CHECK

Score