

Due date	Thursday 18 th January 2024
Name	



GCSE Maths homework 11b1

Year 11 terms 3 & 4

Knowledge Check
Homework Sheet FA3.1

Name :

FA3.1

Question 1 Solve $2x - 6 = -12$	Question 2 Solve $11x - 6 = 10.5$	Question 3 $4(2a - b) - 3(a + 5b)$	Question 4 $5(a - 4b) + 2(2a + 2b)$
Question 5 Work out $2.3 \times 9 =$	Question 6 Work out $103 \div 8 =$	Question 7 Find 60% of £1000	Question 8 Find 20% of £600
Question 9 Divide £28 in the ratio 5 : 2	Question 10 Divide £64 in the ratio 3 : 5	Question 11 Work out $6 \times (11 - 3)$	Question 12 Work out $5 \times 2 + 3$
Question 13 If the n th term of a sequence is $7n + 2$ what is the 10th term?	Question 14 If the n th term of a sequence is $3n + 5$ what is the 8th term?	Question 15 Factorise $10 - 25x$	Question 16 Factorise fully $30x^3 + 20x^2$
Question 17 Express 21 as a product of prime factors	Question 18 Express 330 as a product of prime factors	Question 19 How much change would you get from £10 if you spent £1.43 and £1.15?	Question 20 What is $£10 - 2 \times £1.44$?

Question 21
What does 'commutative' mean?

Score

Due date	Thursday 25 th January 2024
Name	



GCSE Maths homework 11b1

Year 11 terms 3 & 4

Knowledge Check
Homework Sheet FA3.2

Name :

FA3.2

Question 1 Solve $4x + 2 = 2x + 14$	Question 2 Solve $3(7x - 2) = -27$	Question 3 $5(a - 2b) + 2(a + 5b)$	Question 4 $5(4a - 3b) + 2(a - 3b)$
Question 5 Work out $7.3 \times 6.3 =$	Question 6 Work out $85 \div 4 =$	Question 7 Find 35% of £380	Question 8 Find 75% of £420
Question 9 Divide £132 in the ratio 3 : 8	Question 10 Divide £112 in the ratio 5 : 11	Question 11 Work out $3 + 4 \times 2$	Question 12 Work out $2 \times (6 + 2) \times 5$
Question 13 If the n th term of a sequence is $7n - 1$ what is the 6th term?	Question 14 If the n th term of a sequence is $12n + 2$ what is the 7th term?	Question 15 Factorise $21 - 9x$	Question 16 Factorise fully $24x + 16x^2$
Question 17 Express 231 as a product of prime factors	Question 18 Express 24 as a product of prime factors	Question 19 How much change would you get from £10 if you spent £2.27 and £2.77?	Question 20 What is $£5 - 2 \times £0.81$?
Question 21 What does 'index' mean			

Score

Due date	Thursday 1 st February 2024
Name	



GCSE Maths homework 11b1

Year 11 terms 3 & 4

Knowledge Check
Homework Sheet FA3.3

Name :

FA3.3

Question 1 Solve $4x - 4 = 2x - 6$	Question 2 Solve $6x - 2 = 5x - 5$	Question 3 $5(4a + 2b) - 3(2a + b)$	Question 4 $3(a - 4b) - 2(a + 4b)$
Question 5 Work out $68 \times 1.1 =$	Question 6 Work out $86 \div 5 =$	Question 7 Find 95% of £100	Question 8 Find 50% of £40
Question 9 Divide £143 in the ratio 2 : 11	Question 10 Divide £144 in the ratio 11 : 7	Question 11 Work out $12 \times (8 - 6)$	Question 12 Work out $6 + 6 \times 3^2$
Question 13 If the nth term of a sequence is $10n - 6$ what is the 11th term?	Question 14 If the nth term of a sequence is $4n + 3$ what is the 6th term?	Question 15 Factorise $35x + 55$	Question 16 Factorise fully $12x^3 - 30x^2$
Question 17 Express 40 as a product of prime factors	Question 18 Express 126 as a product of prime factors	Question 19 How much change would you get from £10 if you spent £2.39 and £3.98?	Question 20 What is $£10 - 4 \times £1.91$?

Question 21
What does 'coefficient' mean?

Score

Due date	Thursday 8 th February 2024
Name	



GCSE Maths homework 11b1

Year 11 terms 3 & 4

Knowledge Check
Homework Sheet FA3.4

Name :

FA3.4

Question 1 Solve $4(10x + 5) = 260$	Question 2 Solve $2(6x - 5) = -58$	Question 3 $2(3a + 2b) - 2(2a + 5b)$	Question 4 $2(a + 5b) + 2(2a - 5b)$
Question 5 Work out $58 \times 0.8 =$	Question 6 Work out $56 \div 5 =$	Question 7 Find 30% of £560	Question 8 Find 30% of £920
Question 9 Divide £140 in the ratio 3 : 11	Question 10 Divide £143 in the ratio 11 : 2	Question 11 Work out $3 \times 4 + 5$	Question 12 Work out $2 \times (5 + 4) \times 5$
Question 13 If the nth term of a sequence is $6n + 4$ what is the 9th term?	Question 14 If the nth term of a sequence is $5n + 2$ what is the 5th term?	Question 15 Factorise $4x + 22$	Question 16 Factorise fully $24x - 8x^2$
Question 17 Express 32 as a product of prime factors	Question 18 Express 112 as a product of prime factors	Question 19 How much change would you get from £10 if you spent £2.50 and £3.99?	Question 20 What is $£10 - 3 \times £1.38$?
Question 21 What does 'simplify' mean?	Score <input type="text"/>		

Due date	Thursday 22 nd February 2024
Name	



GCSE Maths homework 11b1

Year 11 terms 3 & 4

Knowledge Check
Homework Sheet FA3.5

Name :

FA3.5

Question 1 Solve $4x + 1 = 3x - 1$	Question 2 Solve $7x = 2x + 30$	Question 3 $3(2a - 4b) - 4(2a - 3b)$	Question 4 $4(2a + 3b) + 2(2a - 5b)$
Question 5 Work out $8.3 \times 8.1 =$	Question 6 Work out $121 \div 4 =$	Question 7 Find 45% of £520	Question 8 Find 50% of £740
Question 9 Divide £96 in the ratio 3 : 5	Question 10 Divide £84 in the ratio 5 : 2	Question 11 Work out $10 \times (12 - 4)$	Question 12 Work out $3 + 12 \times 2^2$
Question 13 If the nth term of a sequence is $10n$ what is the 12th term?	Question 14 If the nth term of a sequence is $4n - 2$ what is the 5th term?	Question 15 Factorise $4x - 6$	Question 16 Factorise fully $16y^2 - 8y^3$
Question 17 Express 16 as a product of prime factors	Question 18 Express 21 as a product of prime factors	Question 19 How much change would you get from £10 if you spent £2.35 and £3.13?	Question 20 What is $£10 - 4 \times £1.15$?

Question 21
What does 'product' mean?

Score

Due date	Thursday 29 th February 2024
Name	



GCSE Maths homework 11b1

Year 11 terms 3 & 4

Knowledge Check
Homework Sheet FA4.1

Name :

FA4.1

Question 1 Work out $\frac{1}{2} - \frac{1}{3}$	Question 2 $\frac{1}{2} + \frac{1}{3}$	Question 3 Round 9864 to 1 significant figure	Question 4 Round 0.8888 to 1 significant figure
Question 5 Work out $\frac{1}{6} \times \frac{2}{3}$	Question 6 Work out $\frac{1}{4} \div \frac{2}{3}$	Question 7 Factorise $80x + 30$	Question 8 Factorise fully $30x^2 + 10x$
Question 9 Find the lowest common multiple of 10 and 6	Question 10 Express 1440 as a product of prime factors	Question 11 Work out $76 \times 26 =$	Question 12 Work out $709 \times 41 =$
Question 13 Express 0.33 as a fraction	Question 14 Express as a percentage $\frac{2}{5} =$	Question 15 What is the 12th square number?	Question 16 What is the 6th prime number?
Question 17 Find 5% of £820	Question 18 Find 45% of £240	Question 19 Calculate the area of a circle with radius = 6 cm. Leave your answer in terms of π	Question 20 Calculate the circumference of a circle with radius = 4 cm. Leave your answer in terms of π

Question 21
 What is 'data'?

Score

Due date	Thursday 7 th March 2024
Name	



GCSE Maths homework 11b1

Year 11 terms 3 & 4

Knowledge Check
Homework Sheet FA4.2

Name :

FA4.2

Question 1 Work out $\frac{3}{4} - \frac{1}{2}$	Question 2 $\frac{1}{4} + \frac{1}{6}$	Question 3 Round 579697 to 1 significant figure	Question 4 Round 0.42254 to 1 significant figure
Question 5 Work out $\frac{1}{5} \times \frac{1}{2}$	Question 6 Work out $\frac{2}{5} \div \frac{1}{3}$	Question 7 Factorise $36x - 16$	Question 8 Factorise fully $80x^2 + 70x$
Question 9 Find the highest common factor of 50 and 35	Question 10 Express 10 as a product of prime factors	Question 11 Work out $54 \times 48 =$	Question 12 Work out $679 \times 71 =$
Question 13 Express 0.13 as a percentage	Question 14 Express as a percentage $\frac{15}{20} =$	Question 15 What is the 9th square number?	Question 16 What is the 4th prime number?
Question 17 Find 20% of £280	Question 18 Find 90% of £640	Question 19 Calculate the area of a circle with radius = 3 cm. Leave your answer in terms of π	Question 20 Calculate the circumference of a circle with radius = 6 cm. Leave your answer in terms of π

Question 21Circle any coefficients in the expression $3x^2 + 2x + 4$

Score

Due date	Thursday 14 th March 2024
Name	



GCSE Maths homework 11b1

Year 11 terms 3 & 4

Knowledge Check
Homework Sheet FA4.3

Name :

FA4.3

Question 1 Work out $\frac{8}{9} - \frac{2}{3}$	Question 2 $\frac{1}{2} + \frac{1}{3}$	Question 3 Round 634 to 1 significant figure	Question 4 Round 0.414 to 1 significant figure
Question 5 Work out $\frac{2}{3} \times \frac{1}{2}$	Question 6 Work out $\frac{1}{2} \div \frac{2}{3}$	Question 7 Factorise $42x - 49$	Question 8 Factorise fully $45x^2 - 35x$
Question 9 Find the lowest common multiple of 24 and 12	Question 10 Express 432 as a product of prime factors	Question 11 Work out $67 \times 32 =$	Question 12 Work out $594 \times 20 =$
Question 13 Express 0.58 as a fraction	Question 14 Express as a percentage $\frac{1}{20} =$	Question 15 What is the 10th square number?	Question 16 What is the 1st prime number?
Question 17 Find 5% of £940	Question 18 Find 35% of £520	Question 19 Calculate the area of a circle with diameter = 20 cm. Leave your answer in terms of π	Question 20 Calculate the circumference of a circle with radius = 12 cm. Leave your answer in terms of π

Question 21Circle any variables in the expression $3x^2 + 2x + 4$

Score

Due date	Thursday 21 st March 2024
Name	



GCSE Maths homework 11b1

Year 11 terms 3 & 4

Knowledge Check
Homework Sheet FA4.4

Name :

FA4.4

Question 1 Work out $\frac{3}{4} - \frac{2}{3}$	Question 2 $\frac{7}{10} + \frac{4}{7}$	Question 3 Round 940 to 1 significant figure	Question 4 Round 0.952 to 1 significant figure
Question 5 Work out $\frac{2}{5} \times \frac{1}{3}$	Question 6 Work out $\frac{1}{3} \div \frac{1}{2}$	Question 7 Factorise $48x + 42$	Question 8 Factorise fully $18x^2 + 42x$
Question 9 Find the highest common factor of 80 and 20	Question 10 Express 4320 as a product of prime factors	Question 11 Work out $32 \times 22 =$	Question 12 Work out $330 \times 54 =$
Question 13 Express 0.58 as a percentage	Question 14 Express as a percentage $\frac{7}{25} =$	Question 15 What is the 7th square number?	Question 16 What is the 6th prime number?
Question 17 Find 20% of £160	Question 18 Find 70% of £580	Question 19 Calculate the area of a circle with radius = 12 cm. Leave your answer in terms of π	Question 20 Calculate the circumference of a circle with radius = 4 cm. Leave your answer in terms of π

Question 21Circle any constants in the expression $3x^2 + 2x + 4$

Score

Due date	Thursday 28 th March 2024
Name	



GCSE Maths homework 11b1

Year 11 terms 3 & 4

Knowledge Check
Homework Sheet FA4.5

Name :

FA4.5

Question 1 Work out $\frac{5}{6} - \frac{1}{7}$	Question 2 $\frac{1}{3} + \frac{1}{2}$	Question 3 Round 4770 to 1 significant figure	Question 4 Round 0.26683 to 1 significant figure
Question 5 Work out $\frac{4}{9} \times \frac{1}{2}$	Question 6 Work out $\frac{4}{5} \div \frac{1}{2}$	Question 7 Factorise $56x + 35$	Question 8 Factorise fully $14x^2 + 49x$
Question 9 Find the highest common factor of 16 and 56	Question 10 Express 2160 as a product of prime factors	Question 11 Work out $35 \times 58 =$	Question 12 Work out $670 \times 21 =$
Question 13 Express 0.63 as a fraction	Question 14 Express as a percentage $\frac{17}{20} =$	Question 15 What is the 10th square number?	Question 16 What is the 3rd prime number?
Question 17 Find 20% of £720	Question 18 Find 40% of £40	Question 19 Calculate the area of a circle with radius = 3 cm. Leave your answer in terms of π	Question 20 Calculate the circumference of a circle with diameter = 18 cm. Leave your answer in terms of π

Question 21
 What is an 'exponent'?

Score

Due date	Thursday 11 th April 2024
Name	



GCSE Maths homework 11b1

Year 11 terms 3 & 4

Knowledge Check
Homework Sheet FA4.6

Name :

FAA4.6

Question 1 Work out $1.1 \times 10^4 + 2.9 \times 10^3$	Question 2 Work out $2.0 \times 10^4 - 5.5 \times 10^2$	Question 3 Expand and simplify $(x - 9)(x + 8)$	Question 4 Expand and simplify $(x + 7)(x + 8)$
Question 5 Factorise $x^2 + 15x + 44$	Question 6 Factorise $x^2 + 7x - 44$	Question 7 An antique is sold £575 making a 15% profit. What was the original price of the antique?	Question 8 A car is sold for £2100 making a 30% loss. What was the original price of the car?
Question 9 Work out $\frac{1}{4} \div \frac{1}{2}$	Question 10 Work out $\frac{3}{5} - \frac{1}{4}$	Question 11 Express as an inequality the error interval when x is given as 1.9 when rounded to 1 decimal place	Question 12 Express as an inequality the error interval when x is given as 4 when rounded to 1 significant figure.
Question 13 Solve $x^2 + 12x = 0$	Question 14 Solve $4x^2 + 12x = 0$	Question 15 The price of an item increased from £120 to £138. Calculate the percentage change	Question 16 The price of an item decreased from £70 to £49. Calculate the percentage change
Question 17 A car travels for 1 hour 20 minutes at a speed of 72 km per hour. Calculate the distance travelled.	Question 18 A car travels 80km at a speed of 60 km/h. How long does the journey take?	Question 19 Sketch the graph of $y = 5 - x$	Question 20 Sketch the graph of $y = x + 5$

Question 21
What is a trapezium?

Score