Due date	Thursday 18th January 2024
Name	

GCSE Maths homework 10r3

Year 10 terms 3 & 4

Knowledge Check

Homework Sheet 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 × 9 =

Question 6
Work out   103 ÷ 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 × (11 - 3)

Question 12
Work out   5 × 2 + 3

Question 13
If the nth term of a sequence is 7n + 2 what is the 10th term?

Question 14
If the nth 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 × £1.44?

Question 21
What does 'commutative' mean?

Score

Due date	Thursday 25th January 2024
Name	

GCSE Maths homework 10r3

Year 10 terms 3 & 4

Knowledge Check

Homework Sheet FA3.2

Name :

Question 1	Question 2	Question 3	Question 4
Solve 4x + 2 = 2x + 14	Solve 3(7x - 2) = -27	5(a - 2b) + 2(a + 5b)	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 nth term of a sequence is 7n - 1 what is the 6th term?	**Question 14** If the nth 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 × £0.81?

Question 21
What does 'index' mean

Score

Due date	Thursday 1st February 2024
Name	

GCSE Maths homework 10r3

Year 10 terms 3 & 4

Knowledge Check

Homework Sheet FA3.3

Name : _____ FA3.3

Question 1	Question 2	Question 3	Question 4
Solve $4x - 4 = 2x - 6$	Solve $6x - 2 = 5x - 5$	$5(4a + 2b) - 3(2a + b)$	$3(a - 4b) - 2(a + 4b)$

Question 5	Question 6	Question 7	Question 8
Work out $\quad 68 \times 1.1 =$	Work out $\quad 86 \div 5 =$	Find 95% of £100	Find 50% of £40

Question 9	Question 10	Question 11	Question 12
Divide £143 in the ratio 2 : 11	Divide £144 in the ratio 11 : 7	Work out $\quad 12 \times (8 - 6)$	Work out $\quad 6 + 6 \times 3^2$

Question 13	Question 14	Question 15	Question 16
If the nth term of a sequence is $10n - 6$ what is the 11th term?	If the nth term of a sequence is $4n + 3$ what is the 6th term?	Factorise $35x + 55$	Factorise fully $\quad 12x^3 - 30x^2$

Question 17	Question 18	Question 19	Question 20
Express 40 as a product of prime factors	Express 126 as a product of prime factors	How much change would you get from £10 if you spent £2.39 and £3.98?	What is £10 - 4 × £1.91?

Question 21	Score ☐	
What does 'coefficient' mean?		

Due date	Thursday 8th February 2024
Name	

GCSE Maths homework 10r3

Year 10 terms 3 & 4

Knowledge Check

Homework Sheet FA3.4

Name :

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

Question 21
What does 'simplify' mean?

Score

Due date	Thursday 22nd February 2024
Name	

GCSE Maths homework 10r3

Year 10 terms 3 & 4

Knowledge Check

Homework Sheet FA3.5

Name :

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

Question 21
What does 'product' mean?

Score

Due date	Thursday 29th February 2024
Name	

GCSE Maths homework 10r3

Year 10 terms 3 & 4

Knowledge Check

Homework Sheet FA4.1

Name :   FA4.1

Question 1 Work out $\dfrac{1}{2} - \dfrac{1}{3}$	**Question 2** $\dfrac{1}{2} + \dfrac{1}{3}$	**Question 3** Round 9864 to 1 significant figure	**Question 4** Round 0.8888 to 1 significant figure
Question 5 Work out $\dfrac{1}{6} \times \dfrac{2}{3}$	**Question 6** Work out $\dfrac{1}{4} \div \dfrac{2}{3}$	**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 $\dfrac{2}{5} =$	**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 7th March 2024
Name	

GCSE Maths homework 10r3

Year 10 terms 3 & 4

Knowledge Check

Homework Sheet FA4.2

Name : FA4.2

Question 1 Work out $\dfrac{3}{4} - \dfrac{1}{2}$	Question 2 $\dfrac{1}{4} + \dfrac{1}{6}$	Question 3 Round 579697 to 1 significant figure	Question 4 Round 0.42254 to 1 significant figure
Question 5 Work out $\dfrac{1}{5} \times \dfrac{1}{2}$	Question 6 Work out $\dfrac{2}{5} \div \dfrac{1}{3}$	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 × 48 =	Question 12 Work out 679 × 71 =
Question 13 Express 0.13 as a percentage	Question 14 Express as a percentage $\dfrac{15}{20} =$	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 21
Circle any coefficients in the expression 3x² + 2x + 4

Score

Due date	Thursday 14th March 2024
Name	

GCSE Maths homework 10r3

Year 10 terms 3 & 4

Knowledge Check

Homework Sheet FA4.3

Name : FA4.3

Question 1 Work out $\dfrac{8}{9} - \dfrac{2}{3}$	Question 2 $\dfrac{1}{2} + \dfrac{1}{3}$	Question 3 Round 634 to 1 significant figure	Question 4 Round 0.414 to 1 significant figure
Question 5 Work out $\dfrac{2}{3} \times \dfrac{1}{2}$	Question 6 Work out $\dfrac{1}{2} \div \dfrac{2}{3}$	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 × 32 =	Question 12 Work out 594 × 20 =
Question 13 Express 0.58 as a fraction	Question 14 Express as a percentage $\dfrac{1}{20} =$	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 21
Circle any variables in the expression $3x^2 + 2x + 4$

Score [ ]

Due date	Thursday 21st March 2024
Name	

GCSE Maths homework 10r3

Year 10 terms 3 & 4

Knowledge Check

Homework Sheet FA4.4

Question 1	Question 2	Question 3	Question 4
Work out $\dfrac{3}{4} - \dfrac{2}{3}$	$\dfrac{7}{10} + \dfrac{4}{7}$	Round 940 to 1 significant figure	Round 0.952 to 1 significant figure
Question 5 Work out $\dfrac{2}{5} \times \dfrac{1}{3}$	**Question 6** Work out $\dfrac{1}{3} \div \dfrac{1}{2}$	**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 $\dfrac{7}{25} =$	**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 21
Circle any constants in the expression $3x^2 + 2x + 4$

Score [   ]

GCSE Maths homework 10r3

Year 10 terms 3 & 4

Knowledge Check

Homework Sheet FA4.5

Name :

Question 1 Work out $\dfrac{5}{6} - \dfrac{1}{7}$	**Question 2** $\dfrac{1}{3} + \dfrac{1}{2}$	**Question 3** Round 4770 to 1 significant figure	**Question 4** Round 0.26683 to 1 significant figure
Question 5 Work out $\dfrac{4}{9} \times \dfrac{1}{2}$	**Question 6** Work out $\dfrac{4}{5} \div \dfrac{1}{2}$	**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 $\dfrac{17}{20} =$	**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 [   ]

GCSE Maths homework 10r3

Year 10 terms 3 & 4

Knowledge Check

Homework Sheet FA4.6

Question 1	Question 2	Question 3	Question 4
Work out $1.1\times10^4 + 2.9\times10^3$	Work out $2.0\times10^4 - 5.5\times10^2$	Expand and simplify $(x - 9)(x + 8)$	Expand and simplify $(x + 7)(x + 8)$

Question 5	Question 6	Question 7	Question 8
Factorise $x^2 + 15x + 44$	Factorise $x^2 + 7x - 44$	An antique is sold £575 making a 15% profit. What was the original price of the antique?	A car is sold for £2100 making a 30% loss. What was the original price of the car?

Question 9	Question 10	Question 11	Question 12
Work out $\frac{1}{4} \div \frac{1}{2}$	Work out $\frac{3}{5} - \frac{1}{4}$	Express as an inequality the error interval when x is given as 1.9 when rounded to 1 decimal place	Express as an inequality the error interval when x is given as 4 when rounded to 1 significant figure.

Question 13	Question 14	Question 15	Question 16
Solve $x^2 + 12x = 0$	Solve $4x^2 + 12x = 0$	The price of an item increased from £120 to £138. Calculate the percentage change	The price of an item decreased from £70 to £49. Calculate the percentage change

Question 17	Question 18	Question 19	Question 20
A car travels for 1 hour 20 minutes at a speed of 72 km per hour. Calculate the distance travelled.	A car travels 80km at a speed of 60 km/h. How long does the journey take?	Sketch the graph of y = 5 - x	Sketch the graph of y = x + 5

Question 21
What is a trapezium?

Score