

Due date	Thursday 18 <sup>th</sup> January 2024
Name	



# GCSE Maths homework 11r3,4&5

Year 11 terms 3 & 4

Knowledge Check  
Homework Sheet FA3.1

Name :

FA3.1

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

**Question 21**  
What does 'commutative' mean?

Score

Due date	Thursday 25 <sup>th</sup> January 2024
Name	



# GCSE Maths homework 11r3,4&5

Year 11 terms 3 & 4

Knowledge Check  
Homework Sheet FA3.2

Name :

FA3.2

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

Score

Due date	Thursday 1 <sup>st</sup> February 2024
Name	



# GCSE Maths homework

## 11r3,4 &5

Year 11 terms 3 & 4

Knowledge Check

Homework Sheet FA3.3

Name :

FA3.3

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

**Question 21**  
What does 'coefficient' mean?

Score

Due date	Thursday 8 <sup>th</sup> February 2024
Name	



# GCSE Maths homework

## 11r3,4 &5

Year 11 terms 3 & 4

### Knowledge Check

Homework Sheet FA3.4

Name :

FA3.4

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



Due date	Thursday 22 <sup>nd</sup> February 2024
Name	



# GCSE Maths homework

## 11r3,4 &5

Year 11 terms 3 & 4

Knowledge Check

Homework Sheet FA3.5

Name :

FA3.5

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

**Question 21**  
What does 'product' mean?

Score

Due date	Thursday 29 <sup>th</sup> February 2024
Name	



# GCSE Maths homework 11r3,4&5

Year 11 terms 3 & 4

Knowledge Check  
Homework Sheet FA4.1

Name :

FA4.1

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

**Question 21**  
 What is 'data'?

Score

Due date	Thursday 7 <sup>th</sup> March 2024
Name	



# GCSE Maths homework 11r3,4&5

Year 11 terms 3 & 4

Knowledge Check  
Homework Sheet FA4.2

Name :

FA4.2

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

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

Score

Due date	Thursday 14 <sup>th</sup> March 2024
Name	



# GCSE Maths homework 11r3,4&5

Year 11 terms 3 & 4

Knowledge Check  
Homework Sheet FA4.3

Name :

FA4.3

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

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

Score



Due date	Thursday 21 <sup>st</sup> March 2024
Name	



# GCSE Maths homework 11r3,4&5

Year 11 terms 3 & 4

Knowledge Check  
Homework Sheet FA4.4

Name :

FA4.4

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

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

Score

Due date	Thursday 28 <sup>th</sup> March 2024
Name	



# GCSE Maths homework 11r3,4&5

Year 11 terms 3 & 4

Knowledge Check  
Homework Sheet FA4.5

Name :

FA4.5

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

**Question 21**  
 What is an 'exponent'?

Score

Due date	Thursday 11 <sup>th</sup> April 2024
Name	



# GCSE Maths homework 11r3,4&5

Year 11 terms 3 & 4

Knowledge Check  
Homework Sheet FA4.6

Name :

FAA4.6

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

**Question 21**  
What is a trapezium?

Score