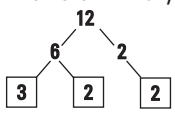
Answers

Week 1

Day 1

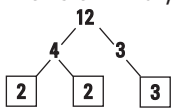
1. 0.9
2. 0.99
3. 0.81
4. 0.081
5. 10
6. Answers will vary; e.g.



7. μ
8. 4 m^2
9. arc
10. 30
11. 1000
12. conic
13. 4
14. 12
15. 100
16. 52
17. $42.75
18. MCMLXII
19. 1.852 km
20. 32

Day 2

1. 0.81
2. 0.98
3. 0.82
4. 0.072
5. $^{90}/_{8}$ or $^{45}/_{4}$
6. Answers will vary; e.g.



7. ray
8. 1 m^2
9. μ
10. 2
11. 1000
12. It boils
13. 4

14. 20
15. 200
16. 52
17. $41.30
18. MCMLXI
19. 1.852 km (1 nautical mile)
20. 39

Day 3

1. 0.7
2. 0.97
3. 0.83
4. 0.063
5. $^{90}/_{7} = 12^{6}/_{7}$
6. coplanar
7. Yes
8. 9 m^2
9. $1248
10. 75
11. 58
12. constant
13. 4
14. 4080
15. 52
16. 10 000
17. 96%
18. MCMLVII
19. 40
20. 1

Day 4

1. 0.49
2. 0.96
3. 0.84
4. 0.054
5. $^{90}/_{6} = {}^{45}/_{3} = {}^{15}/_{1} = 15$
6. 10
7. Yes
8. Teacher check; e.g.

9. about $1560
10. 1.5
11. 3, 23
12. Answers will vary; e.g. income or a lifetime.
13. 6 ( or )
14. 150
15. 40
16. 100
17. 15
18. MCMLXIV
19. $^{10}/_{3} = 3^{1}/_{3}$
20. 2

Week 2

Day 1

1. 0.64
2. 0.95
3. 0.85
4. 0.045
5. 18
6. rays
7. Yes
8. 16 m^2
9. 1000 mg
10. 1.75
11. 245
12. Answers will vary; e.g. the universe.
13. 10, two
14. 3, 29
15. 66
16. 5
17. 76%
18. MCMLXX
19. 2.5
20. (b) infinite

Day 2

1. 0.8
2. 0.94
3. 0.86
4. 0.036
5. $^{9}/_{4} = 2^{1}/_{4}$
6. temperature
7. Yes
8. 25 m^2
9. 1000 mL
10. 2.25 km
11. 34.5
12. vertex
13. 10, three
14. 2, 5, 7
15. 78
16. 0.8
17. 75
18. MCMLVIII
19. 3.4
20. (b) infinite

Day 3

1. 0.1
2. 0.93
3. 0.87
4. 0.027
5. 30
6. 36 km/h
7. $560
8. 36 m^2
9. 8
10. 3.75 km
11. curve
12. 0.005
13. Answers will vary; e.g. parallelogram, square, rectangle, rhombus.
14. 9
15. 30
16. 10
17. $^{1}/_{250}$
18. MCMLIII
19. (b) the diagonal angles
20. 4.3

Day 4

1. 0.01
2. 0.92
3. 0.88
4. 0.018
5. 45
6. $1 750 000
7. 2
8. 49 m^2
9. 18
10. 10 000 m^2
11. frequency graph
12. 0.008
13. quadrilateral
14. 2
15. 5
16. 14.5
17. 500
18. MCMXLVII
19. (a) all four
20. 5.2

Week 3

Day 1

1. 1.1
2. 0.91
3. 0.89
4. 0.009
5. 90
6. 4 minutes
7. $9.10
8. 64 m^2
9. 21
10. 0.5 kg
11. 0.001
12. 2, 3, 7
13. oblong
14. scatterplot
15. $^1/_{1000}$
16. –3.5
17. 5
18. division
19. 0.0665
20. 6.1

Day 2

1. 1.21
2. 0.901
3. 0.899
4. 0.0009
5. 900
6. 3 minutes
7. $15.60
8. 81 m^2
9. 16
10. 21.75 kg
11. 0.005
12. 2^2, 3, 7
13. kite
14. (negative) parabola
15. $^1/_{1000}$
16. 5.5
17. 4
18. subtraction
19. $0.0\overline{6}$
20. 6.99

Day 3

1. 1.2
2. 0.81
3. 0.79
4. 0.008
5. 80
6. 21 plants
7. Teacher check
8. 100 m^2
9. 20
10. $^1/_{100}$
11. 0.005
12. 2^4
13. Answers may vary; e.g. dart, delta, chevron, arrowhead
14. (d) $^{13}/_{48}$
15. $^1/_{100}$
16. 168
17. 2^4 or 4^2
18. multiplication
19. 79%
20. 34.5

Day 4

1. 1.44
2. 0.82
3. 0.78
4. 0.016
5. 40
6. 11 posts
7. $9.75
8. 121 m^2
9. 15
10. $^1/_7$
11. 0.005
12. 2^3
13. 2
14. (d) $^{12}/_{48}$
15. $^1/_{1000}$
16. 180
17. 2^3
18. division
19. 84%
20. 39.4

Week 4

Day 1

1. 0.3
2. 0.83
3. 0.76
4. 0.024
5. $^{80}/_3 = 26^2/_3$
6. 80 cm^3
7. 5
8. 144 m^2
9. 300
10. $^1/_5$
11. –2.5
12. 0.004
13. isosceles trapezoid or trapezium
14. three
15. 2017
16. diameter
17. Answers will vary; e.g. school oval
18. breadth
19. 30.05
20. 4

Day 2

1. 0.09
2. 0.84
3. 0.76
4. 0.032
5. 20
6. 288 cm^3
7. five
8. 169 m^2
9. 400
10. $^1/_2$
11. –3.9
12. 0.004
13. Teacher check; e.g. concave kite, chevron, delta, dart.
14. knots
15. 2018
16. radius
17. 144
18. Answers will vary; e.g. a hippo
19. 4.26
20. 4

Day 3

1. 0.6
2. 0.85
3. 0.75
4. 0.04
5. 16
6. 128 cm^3
7. Teacher check
8. 225 m^2
9. 16
10. $^1/_{12}$
11. –5
12. 0.0046
13. quadrant
14. 100
15. 12
16. 17.6
17. temperature
18. Teacher check (Southern Hemisphere: June, July, August)
19. 100%
20. 42.58

Day 4

1. 0.36
2. 0.86
3. 0.74
4. 0.048
5. $^{80}/_6 = {}^{40}/_3 = 13^1/_3$
6. 32 cm^3
7. $10.40
8. 10 000 m^2
9. 20
10. $1^2/_6 = 1^1/_3$
11. 6
12. 0.005
13. annulus
14. 2
15. six
16. 1608
17. height
18. Teacher check (Southern Hemisphere: December, January, February)
19. 74%
20. 42.2

Answers

Week 5

Day 1

1. 0.5
2. 0.87
3. 0.73
4. 0.056
5. $^{80}/_{7} = 11\,^{3}/_{7}$
6. 17 cm
7. 5
8. Teacher check; e.g. part of a microscopic human cell.
9. 48
10. 282
11. 0.014
12. torus (or donut shape)
13. 4
14. 60
15. subset
16. 252
17. Teacher check; e.g. 4, 9, 25, 36
18. Teacher check. (Southern Hemisphere: March, April, May)
19. 3
20. 35.55

Day 2

1. 0.25
2. 0.88
3. 0.72
4. 0.064
5. 10
6. 12 cm
7. 13
8. Teacher check; e.g. length of a mosquito.
9. 28
10. 952
11. 0.005
12. 1.0
13. 10
14. decibels
15. top vertex
16. 294
17. Teacher check; e.g. 8, 64, 125
18. Teacher check. (Southern Hemisphere: September, October, November)
19. 4
20. 39.4

Day 3

1. 0.25
2. 0.89
3. 0.71
4. 0.072
5. $^{80}/_{9} = 8\,^{8}/_{9}$
6. 20 cm
7. –24
8. $1820
9. Teacher check; e.g. Amount of carbohydrates in a serving of food.
10. $2\,^{7}/_{8}$
11. 6
12. 100%
13. 10
14. 25%
15. $^{1}/_{10\,000}$
16. 336
17. $^{1}/_{1000}$
18. knots
19. 87%
20. 5

Day 4

1. 0.0625
2. 0.17
3. –0.01
4. 0.0072
5. $^{8}/_{9}$
6. 19 cm
7. –22
8. $2340
9. Teacher check; e.g. Amount of water to fill a pool.
10. 183
11. $^{1}/_{2}$
12. 1 : 1
13. 20
14. 400%
15. 100 m^2
16. 378
17. $^{1}/_{1000}$
18. 21 600 (360° × 60 nm)
19. 75%
20. 6

Week 6

Day 1

1. 0.4
2. 0.71
3. 0.69
4. 0.007
5. 70
6. 20 cm
7. –29
8. $2600
9. Teacher check; e.g. The amount of water in a reservoir.
10. 1 010 200
11. $y < -3$
12. 50%
13. 2
14. 300%
15. $^{1}/_{1\,000\,000}$
16. 126
17. formula
18. (b) $7\,^{2}/_{3}\%$
19. 7
20. 35

Day 2

1. 0.16
2. 0.72
3. 0.68
4. 0.014
5. 35
6. 16 cm
7. –25
8. $2860
9. yottalitre
10. 21 204 100
11. $b \geq 3$
12. 0.5
13. 200
14. 50%
15. area
16. 84
17. histogram
18. $145
19. 8
20. 5

Day 3

1. 1
2. 0.73
3. 0.67
4. 0.021
5. $^{70}/_{3}$
6. 24 cm
7. –6
8. about $2600
9. mg
10. $^{3}/_{8}$
11. 130
12. 1 : 2
13. six
14. concentric
15. cylinder
16. slope
17. number
18. 50%
19. 9
20. 5

Day 4

1. 2.25
2. 0.74
3. 0.66
4. 0.028
5. $^{70}/_{4} = {}^{35}/_{2}$
6. 27 cm
7. –2
8. about $2704
9. tonnes
10. $^{5}/_{8}$
11. 1.25
12. 75%
13. 60
14. semicircle
15. reciprocal
16. gradient
17. node
18. 39 960 km
19. 10
20. 5

Week 7

Day 1

1. $^1/_2$
2. 0.75
3. 0.65
4. 0.035
5. $^{14}/_1$
6. 36 cm
7. –2, (–16 + 14)
8. about $1040
9. Answers may vary; e.g. micrograms
10. Yes
11. 1
12. about 565.2 cm^3
13. 20
14. 12 × 12 × 5 cm
15. scatter plot
16. 196
17. junction
18. D
19. 8
20. 2500

Day 2

1. $^1/_3$
2. 0.76
3. 0.64
4. 0.042
5. $^{70}/_6 = {}^{35}/_3$
6. 81 cm
7. –5, (–17 + 12)
8. about $780
9. Answers may vary; e.g. micrograms
10. No
11. 1
12. circumference
13. 200
14. diameter
15. 10%
16. 147
17. False
18. B
19. 2
20. 0.25

Day 3

1. $^1/_4$
2. 0.77
3. 0.63
4. 0.049
5. 10
6. Teacher check.
7. –1(–13 + 12)
8. about $520
9. kilolitre
10. Yes
11. $3^4 = 81$
12. minor arc
13. 30
14. 40%
15. scatter plot
16. 245
17. False
18. 47.7
19. 0.0002
20. 1 metre

Day 4

1. $^1/_5$
2. 0.78
3. 0.62
4. 0.056
5. $^{70}/_8 = 8^3/_4$
6. $435
7. –13(–15 + 2)
8. $1300
9. kilograms
10. Yes
11. $3^4 = 81$
12. major arc
13. 300
14. 900%
15. subitise (quickly count)
16. 294
17. 2000
18. 34.3
19. 0.0003
20. 4

Week 8

Day 1

1. 0.01
2. 0.79
3. 0.61
4. 0.063
5. $^{70}/_9 = 7^7/_9$
6. 1
7. (–11 – 2) = –13
8. about $3120
9. megalitres or gigalitres
10. Yes
11. 8
12. 0.004
13. 50%
14. 150%
15. subitise
16. 282
17. $^1/_{1000}$
18. 13 (One dozen plus one)
19. 2000
20. No (It is a factor, but not a prime factor.)

Day 2

1. $^1/_4$
2. 0.81
3. 0.79
4. 0.008
5. 80
6. 1
7. (–5 – 2) = –7
8. about $3900
9. millilitre
10. Yes
11. 16
12. 0.0005
13. 25%
14. 300%
15. 180°
16. 322
17. No (Platonic solids all have only one face type; e.g.
    - □ cube
    - ⬠ dodecahedron
    - △ icosahedron
    - △ tetrahedron
    - △ octahedron
18. 70 years
19. 10 000
20. 25%

Day 3

1. $^1/_{49}$
2. 1.8
3. 0.08
4. 0.0006
5. 4000
6. 1
7. (–3 – 2) = –5
8. about $3640
9. kilogram
10. (–4)
11. two variables
12. recognise a number without counting
13. 25%
14. 20
15. $^1/_{100}$
16. 96
17. that number
18. 2^6
19. half a line
20. 25%

Day 4

1. $^1/_3$
2. 1.79
3. 0.01
4. 0.0007
5. 5000
6. 1
7. (–7 – 2) = –9
8. about $4680
9. kg/lbs
10. –3
11. tangent
12. 90°
13. 20%
14. 1000
15. $^1/_5$
16. 72
17. that number
18. 2^3, 7
19. A circle
20. $x \div 4 = 120$ *or* $x \div 120 = 4$

Answers

Week 9

Day 1

1. $^1/_{64}$
2. 0.09
3. –0.07
4. 0.0008
5. 40 000
6. 1
7. $11.70
8. about $728
9. micrometre
10. 0.3
11. 24
12. Teacher check.
    $20 \div 5 = 4$ *or*
    $20 \div 4 = 5$
13. $16^2/_3\%$
14. 10%
15. none
16. 100
17. 5
18. MCMXC
19. 91°
20. $^1/_{100\,000}$

Day 2

1. $^1/_2$
2. 0.1
3. –0.08
4. 0.0009
5. 4
6. 1
7. $13
8. about $832
9. millimetre
10. 1
11. –7.5
12. Teacher check.
    $14 - 9 = 5$ *or*
    $14 - 5 = 9$
13. $14^2/_7\%$
14. 20%
15. space, boundary
16. 100
17. 1
18. MCMXCIX
19. 157°
20. $^1/_{10}$

Day 3

1. $^1/_9$
2. 0.11
3. 9.8
4. 0.001
5. 500 000
6. $12a^2$
7. $^1/_8$
8. about $5200
9. 40
10. –0.8
11. $11 \times 24 \times 16$ cm
12. major sector
13. $^1/_8 = 12.5\%$
14. 40%
15. distort
16. 92
17. 480
18. 
19. MCMX
20. perimeter

Day 4

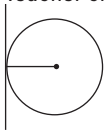
1. $^1/_8$
2. 0.22
3. 9.72
4. 0.0004
5. 200 000
6. 1
7. $^{15}/_{100} = {}^3/_{20}$
8. about $10 400
9. 100
10. 1.5
11. $9 \times 12 \times 18$ cm
12. minor sector
13. $^1/_9 = 11.\dot{1}\%$
14. 50%
15. $x + 6 = 20$ or $20 - x = 6$
16. 115
17. 330
18. Teacher check; e.g.
    
19. MCMXCII
20. order

Week 10

Day 1

1. 0.1
2. 33.79
3. $1^2/_3$
4. 0.0006
5. 500
6. 1
7. Teacher check
8. about $7800
9. 50
10. 24 cm
11. 3000
12. ordered pair
13. 16.67%
14. chord
15. $17
16. 328
17. MDCCCXC
18. Teacher check; e.g.
    
19. 600
20. 20 000

Day 2

1. 256
2. 75.00
3. $2^5/_7$
4. 0.0008
5. 400
6. 3
7. $6.50
8. about $7280
9. 60
10. 11 cm
11. –15
12. A trundle wheel
13. 10%
14. A cylinder or circular prism
15. $12.75
16. 410
17. MCMXCIV
18. Teacher check; e.g.
    
19. 30
20. 0.14

Day 3

1. 0.1
2. 20.05
3. 19.95
4. 1
5. 400
6. 7
7. Yes
8. about $6240
9. 80
10. $\sqrt{20} \approx 4.47$ cm
11. 15
12. Answers will vary; average is 1 hectare
13. 5%
14. oblique prisms
15. $21.25
16. 4.5 m
17. 3.7
18. MCMXCV
19. $15m^4$
20. 400

Day 4

1. –2
2. 200.01
3. 199.99
4. 2
5. 20 000
6. 3
7. 46°
8. about $41 600
9. 120
10. 13
11. –4
12. Answers will vary; average is 0.5 kilometres
13. 12.5%
14. 2
15. $17
16. 0.75 L
17. 0.33
18. MCMXCVII
19. $18m^4$
20. 300

Week 11

Day 1

1. $^1/_4 = 0.25$
2. 30.05
3. 29.95
4. 1.5
5. 600
6. 4
7. Teacher check; e.g.
8. about $4940
9. 240
10. 5050
11. 96%
12. 100 °C/212 °F
13. 1.25%
14. $^1/_2$
15. 8 am
16. 10 cm × 12 cm × 18 cm
17. 2000
18. MCMXCVIII
19. 24
20. 13

Day 2

1. –2
2. 20.04
3. 19.96
4. 0.8
5. 500
6. 6
7. 90°
8. about $15 600
9. 200
10. 500 500
11. 85%
12. thermometer
13. 1%
14. 2 : 1 (diameter is double the radius)
15. 23.00 *or* 11 pm
16. (b) $^{48}/_{50}$
17. 3000
18. MDL
19. ≈ 100 m
20. three

Day 3

1. 0.001
2. 0.033
3. 0.027
4. 0.00009
5. 10
6. 9
7. –15
8. about $10 400
9. 120
10. 34
11. $k \geq 2$
12. (3! = 3 × 2 × 1 = 6) 3 factorial = 6
13. 360°
14. $y^2 + 2xy + x^2$
15. 25%
16. (b) $^{49}/_{50}$
17. 2500
18. MCMXCIII
19. 50 000
20. 12

Day 4

1. –3
2. 0.004
3. 0
4. 0.000004
5. 1
6. 14
7. –54
8. about $13 000
9. 160
10. 28
11. $l < 5$
12. 3! = 6
13. right
14. $y^2 + 4y + 4$
15. 60%
16. (b) $^{48}/_{60}$
17. 3320
18. MCMXIX
19. 10
20. 54

Week 12

Day 1

1. 0.01
2. 0.044
3. 0.036
4. 0.00016
5. 10
6. 5^6
7. 40
8. about $20 800
9. 640
10. 81, 243
11. –0.3
12. 𝍸 𝍸 𝍸
13. congruent
14. $x^2 + 14x + 49$
15. 48 cm^2
16. (a) $^{25}/_{30}$
17. four
18. MCMXCI
19. 3.34×10^{-2}
20. 24

Day 2

1. –4
2. 100.02
3. 99.98
4. 2
5. 5000
6. 5^9
7. –6
8. about $780
9. 1440
10. 16, 32, 64
11. 0.2
12. 𝍸 𝍸 𝍸 𝍸 𝍸
13. A cone or circular pyramid
14. $a^2 - 18a + 81$
15. 56 cm^2
16. (b) $^{42}/_{50}$
17. 10
18. MCMLXXXI
19. 0.4
20. 36

Day 3

1. 0.001
2. 0.066
3. 0.054
4. 0.00036
5. 10
6. 25%
7. $12.35
8. $^1/_6$
9. 2.4
10. about $12 480
11. 3.5
12. +2
13. dodecahedron
14. $m^2 - 4m + 4$
15. order of operations
16. 20
17. 6.32×10^4
18. MCM
19. 200
20. 41

Day 4

1. –5
2. 0.077
3. 0.063
4. 0.00049
5. 10
6. 12.5%
7. $7.15
8. $^3/_4$
9. 4
10. about $2080
11. –7.5
12. –11
13. icosahedron
14. $y^2 - 10y + 25$
15. 
16. 2
17. 1.86×10^{-3}
18. MCMV
19. 2000
20. 48

Answers

Week 13

Day 1

1. 0.01
2. 0.088
3. 0.072
4. 0.00064
5. 10
6. $0.\overline{6}$
7. $7.80
8. 250 000 000 000
9. 80
10. about $7280
11. 1
12. 1
13. octahedron
14. $4a^2 + 4a + 1$
15. inequality
16. open curve
17. 4.72×10^1
18. MCMLXXXIV
19. 1000
20. 60

Day 2

1. –2
2. 0.099
3. 0.081
4. 0.00081
5. 10
6. 20%
7. $16.25
8. 2.5×10^1
9. 100
10. about $3380
11. 3.5
12. 10
13. tetrahedron
14. $9y^2 - 6y + 1$
15. open curve
16. Answers will vary; e.g. displacement/sling on a crane.
17. 6.31×10^{-1}
18. MCMLIV
19. 500
20. 72

Day 3

1. $^1/_{64}$
2. 10.5
3. 9.5
4. 5
5. 20
6. $0.8\overline{3}$
7. S^4
8. 6.9×10^2
9. 48
10. about $4160
11. 0.8
12. $^{10}/_2 = 5$
13. cube
14. $25a^2 - 10a + 1$
15. Teacher check; e.g. displacement volume
16. 1.92×10^3
17. 58 500
18. MCMLIX
19. 0.1
20. 84

Day 4

1. 5
2. 10.005
3. 9.995
4. 0.05
5. 2000
6. $0.\overline{3}$
7. 16
8. 9.9×10^2
9. 24
10. about $12 480
11. 0.5
12. $^{10}/_3 = 3^1/_3$
13. 2
14. $16a^2 + 8a + 1$
15. X-intercept
16. 2.009×10^3
17. 121 600
18. MCMLV
19. 1
20. 96

Week 14

Day 1

1. $^1/_{25}$
2. 5.05
3. 4.95
4. 0.25
5. 100
6. 0.8
7. Teacher check
8. 6.89×10^{-2}
9. 120
10. 1.996×10^3
11. 37
12. $^{10}/_4 = 2^1/_2$
13. 0
14. 1 : 5
15. 24 × 12 × 16 cm
16. $4.95
17. 20
18. MCMLII
19. 0.4
20. 108

Day 2

1. $^1/_9$
2. 10.05
3. 9.95
4. 0.5
5. 200
6. $0.1\dot{6}$
7. $4.55
8. 1.2×10^{-3}
9. 60
10. 1.997×10^3
11. –3
12. $^{10}/_5 = 2$
13. 1
14. 7 : 2000
15. Y–intercept
16. $9.95
17. 44 000
18. MCMLVIII
19. 0.6
20. 109

Day 3

1. $^1/_{36}$
2. 3.05
3. 2.95
4. 0.15
5. 60
6. 0.0001
7. Yes
8. 2 400 000
9. 56
10. astronomical unit
11. 40%
12. (a and c)(b and d)
13. 8
14. manometer
15. 89%
16. 30°
17. Yes
18. 3.34×10^{-2}
19. 0.8
20. 110

Day 4

1. $^1/_{16}$
2. 4.05
3. 3.95
4. 0.2
5. 80
6. 0.89
7. No
8. 297
9. 68
10. the mean distance from Earth to the sun
11. 20%
12. speed and direction
13. v
14. kilometres per hour (km/h) *or* miles per hour (mph)
15. A point where a path crosses the x or y axis.
16. 15°
17. Yes
18. 8.674×10^{-2}
19. 1
20. 111

Week 15

Day 1	Day 2	Day 3	Day 4
1. $^1/_{49}$	1. $^1/_4$	1. $^1/_{64}$	1. $^1/_{64}$
2. 1.55	2. 2.05	2. 2.55	2. 4.55
3. 1.45	3. 1.95	3. 2.45	3. 4.45
4. 0.075	4. 0.1	4. 0.125	4. 0.225
5. 30	5. 40	5. 50	5. 90
6. 0.01	6. 0.001	6. 0.02	6. 0.05
7. Yes	7. Yes	7. $x < 1$	7. $12(6 + 2) = 12(8) = 96$
8. Answers will vary; e.g. the world's population.	8. 18°	8. They stay the same	8. They stay the same
9. 72	9. 76	9. 84	9. 168
10. Teacher check; e.g. $^1/_3$ … 0.333 *or* $^3/_{11}$ … 0.27	10. ray	10. dodecagon or duounidecagon	10. (c) both
11. 71%	11. linear	11. –600	11. 0.02
12. $^{10}/_6 = 1^2/_3$	12. $^{10}/_7 = 1^3/_7$	12. $^{10}/_8 = 1^1/_4$	12. $^{10}/_9 = 1^1/_9$
13. no lines of symmetry	13. nine	13. three	13. four
14. translation (slide)	14. reflection (flip)	14. 100 m	14. 2000 m
15. irrational	15. Teacher check; H drawn smaller	15. 40°	15. 10°
16. 60°	16. 90°	16. 10 hours	16. 20 hours
17. 1.334×10^{-1}	17. 4.00334×10^1	17. 3.034×10^{-2}	17. 3.34×10^{-4}
18. MCMLVI	18. MCMXLIV	18. MCMXLII	18. MCMXXXIX
19. 1.2	19. 1.4	19. 1.6	19. 1.8
20. Teacher check; e.g. $\sqrt{2}$ or π	20. circumference	20. a Cartesian plane	20. 4

Week 16

Day 1	Day 2	Day 3	Day 4
1. $^1/_{81}$	1. 14	1. 0.01	1. 16
2. 5.46	2. 60.06	2. 1.26	2. 2.46
3. 5.34	3. 59.94	3. 1.14	3. 2.34
4. 0.324	4. 3.6	4. 0.072	4. 0.144
5. 90	5. 1000	5. 20	5. 40
6. 0.625	6. 0.875	6. 0.125	6. 0.375
7. 0.3	7. $^4/_9$	7. 7	7. –1
8. Teacher check – any decimal number greater than $^1/_4$ and less than $^1/_2$	8. $10^2/_3$	8. 2 hours	8. 4 hours
9. 52	9. 52	9. 44	9. 44
10. 30°	10. 120°	10. 96	10. 24
11. –0.5	11. 1	11. 3	11. $^1/_3$
12. 64	12. 1	12. three	12. 6
13. 0	13. two	13. 180°	13. 5°
14. 100%	14. 91%	14. 200 m	14. 300 m
15. 50 m	15. 300 m	15. 78%	15. 98%
16. –45	16. –44	16. –43	16. –46
17. 1.001×10^{-2}	17. 4.010334×10^2	17. 6.32	17. 6.02
18. MCMXXXV	18. MCMXLV	18. MCMXX	18. MCMXXX
19. 2	19. 0.3	19. 0.6	19. 0.9
20. +5	20. $7(7y^2 - x^2)$	20. 112	20. 113

Answers

Week 17

Day 1

1. $^1/_{121}$
2. 4.26
3. 4.14
4. 0.252
5. 70
6. 37.5%
7. $x = 4$ *or* -4
8. $(a + 3)(a - 2)$
9. 300
10. 160 km
11. 100
12. (c) both
13. 
14. 25, 125
15. 60°
16. –48
17. 63.3
18. MCMXL
19. 1.8
20. 114

Day 2

1. 11
2. 3.66
3. 3.54
4. 0.216
5. 60
6. 62.5%
7. 1100
8. (4y – 4)(y – 3)
9. 125
10. 100 km
11. 10
12. (a) congruency
13. 
14. 16, 64
15. 30°
16. –4
17. 63 200
18. MCMLX
19. 2.1
20. 115

Day 3

1. $^1/_{144}$
2. 1.68
3. 1.52
4. 0.128
5. 20
6. 87.5%
7. 10 cm
8. (a) $^1/_4$
9. 75
10. –20
11. 100
12. (a) congruency
13. increase
14. pressure in gases
15. 1.5 km
16. –8
17. 2010
18. MCMLXX
19. 1.2
20. 116

Day 4

1. 17
2. 8.08
3. 7.92
4. 0.64
5. 100
6. 5%
7. 3
8. (b) 40.1%
9. 90
10. –12
11. 10
12. (b) similarity
13. decrease
14. 20°
15. 15 km
16. –17
17. 2000
18. MCMLXXX
19. 1.5
20. 117

Week 18

Day 1

1. $^1/_{27}$
2. 6.48
3. 6.32
4. 0.512
5. 80
6. 4%
7. $5.20
8. $^2/_{21}$
9. 100
10. $^7/_g + {}^4/_5$
11. 1
12. 25
13. circular
14. 10°
15. 93.91 m
16. –53
17. 6.32
18. MMX
19. 1.8
20. 118

Day 2

1. $\sqrt{10}$
2. 4.88
3. 4.72
4. 0.384
5. 60
6. 2.5%
7. $3.90
8. $1^1/_2$
9. 625
10. $^a/_6 + 7t$
11. 2
12. 24
13. isosceles triangle
14. 36°
15. 91.39 m
16. –26
17. 63 200
18. MMI
19. 2.1
20. 119

Day 3

1. $^1/_{81}$
2. 4.58
3. 4.42
4. 0.36
5. $^{225}/_4$
6. 2%
7. $5^2 \times 7$
8. $x = 16$
9. 600
10. 2.319 m
11. 1
12. 2.5, 3.5
13. elliptical (oval-shaped)
14. 18°
15. 97%
16. 23
17. 46
18. MMIX
19. 2.4
20. 120

Day 4

1. $^1/_2$
2. 5.68
3. 5.52
4. 0.448
5. 70
6. 1%
7. $2^2 \times 5 \times 3^2$
8. $x = 10$
9. 400
10. 0.2319 m
11. 2.25
12. 2.4, 3.4
13. half a hyperbola
14. 90°
15. 86%
16. 22
17. 46 000
18. MMXI
19. 2.7
20. 121

Week 19

Day 1	Day 2	Day 3	Day 4
1. $^1/_{125}$	**1.** –2	**1.** $^1/_{4}$	**1.** $^1/_{8}$
2. 2.48	**2.** 3.28	**2.** 300.01	**2.** 400.001
3. 2.32	**3.** 3.12	**3.** 299.99	**3.** 399.999
4. 0.192	**4.** 0.256	**4.** 3	**4.** 0.4
5. 30	**5.** 40	**5.** 30 000	**5.** 400 000
6. 0.5%	**6.** 0.1%	**6.** 0.01%	**6.** $8.\overline{3}$%
7. Teacher check	**7.** $3.25	**7.** $x = 3$	**7.** $x = 2$
8. $x = 9$ *or* -9	**8.** $x = 3$	**8.** $2^4 \times 3^2$	**8.** $2^3 \times 3 \times 5$
9. 40	**9.** 4	**9.** 50	**9.** 5
10. 0.01039 m	**10.** 0.01939 m	**10.** 7.32 m	**10.** 1.98 m
11. 1	**11.** 1	**11.** 1	**11.** 1
12. 1.4, 1.0, 0.5	**12.** 125, 216	**12.** 100, 1000, 10 000	**12.** 0.1, 0.01, 0.001
13. parabola	**13.** (b) hyperbola	**13.** square	**13.** square
14. 1.6, 3.2, 6.4	**14.** 2.4, 4.8, 9.6	**14.** 45°	**14.** 8°
15. 72°	**15.** 3°	**15.** 89%	**15.** 83%
16. 121	**16.** 132	**16.** 16, 25, 36 (square)	**16.** 10, 15, 21 (triangular)
17. 62.0	**17.** 6.32	**17.** 633	**17.** 606
18. MMXX	**18.** MMXV	**18.** MMXVI	**18.** MMXXII
19. 3	**19.** 0.5	**19.** 2.5	**19.** 3.4
20. 122	**20.** 123	**20.** 124	**20.** 125

Week 20

Day 1	Day 2	Day 3	Day 4
1. $^1/_{16}$	**1.** $^1/_{32}$	**1.** $^1/_{64}$	**1.** $^1/_{128}$
2. 20.03	**2.** 20.02	**2.** 0.23	**2.** 0.202
3. 19.97	**3.** 19.98	**3.** 0.17	**3.** 0.198
4. 0.6	**4.** 0.4	**4.** 0.006	**4.** 0.0004
5. $666^2/_3$	**5.** 1000	**5.** $^{20}/_3$	**5.** 100
6. 5%	**6.** 20%	**6.** 2.5%	**6.** 4%
7. $c = 1$	**7.** $x = 2$	**7.** $210	**7.** $120
8. $x = 6$	**8.** $x = 12$	**8.** 400 m	**8.** 6000 m
9. 120	**9.** 115	**9.** 200	**9.** 12.50
10. 9.39 m	**10.** 9.31 m	**10.** $8k$	**10.** $10r$
11. 0.8, 1.0, 1.2	**11.** 1.2, 1.5, 1.8	**11.** 121	**11.** 169
12. –1	**12.** 1	**12.** 2:3:3	**12.** 5:1:5
13. rectangular	**13.** rectangular	**13.** triangular	**13.** circular
14. 143	**14.** 165	**14.** $9.50	**14.** $51.75
15. 36°	**15.** 60°	**15.** 6°	**15.** 4°
16. 22, 35 (pentagonal)	**16.** 45, 66 (hexagonal)	**16.** 17	**16.** 19
17. 6.33	**17.** 6.33	**17.** 56.01	**17.** 5.60
18. MMXXIII	**18.** MMXIII	**18.** MMXXIX	**18.** MMXXXII
19. 2.5	**19.** 3.4	**19.** 10	**19.** 2.95
20. 126	**20.** 127	**20.** 128	**20.** 129

Answers

Week 21

Day 1

1. $^1/_{16}$
2. 1.64
3. 2.5
4. 0.6
5. $8.75
6. 2%
7. (a) 0.6
8. about $2080
9. 62.5
10. 225
11. 4000
12. $^1/_1$
13. ellipse
14. [s, h]
15. sector
16. 6
17. 896
18. MMXXIV
19. 3.985
20. 130

Day 2

1. $^1/_{32}$
2. 1.5
3. 3.4
4. 0.4
5. $1.25
6. 5%
7. (a) 0.16
8. $14.30
9. 105
10. 289
11. 50 000 000
12. $^{11}/_{10}$
13. rectangle
14. [i]
15. quarter
16. –5
17. 8.97
18. MMLV
19. 11
20. 131

Day 3

1. $^1/_{64}$
2. 2.87
3. 2.95
4. 0.006
5. 0.05
6. 6.25%
7. [e, n]
8. $18.20
9. 15
10. 400
11. 90 000
12. $^1/_4$
13. $A = \pi ab$
14. chord
15. $1^1/_3$
16. –3
17. 10 100
18. 100
19. 37
20. 20

Day 4

1. $^1/_{128}$
2. 1.9
3. 3.995
4. 0.0004
5. 5
6. $6.\overline{6}\%$
7. [e, n]
8. $22.10
9. 35
10. 625
11. 700
12. $^1/_5$
13. $V = {}^1/_2 (a + b)\, h \times d$
14. diameter
15. $1^1/_8$
16. two hours
17. 63 000
18. 125
19. 43
20. 132

Week 22

Day 1

1. $^1/_{16}$
2. 1.1
3. 2.5
4. 0.6
5. 50
6. 10%
7. [c, h, i]
8. 9%
9. 45
10. 169
11. 20
12. $^7/_3$
13. $A = 4\pi r^2$
14. 
15. $2^1/_4$
16. one hour
17. 60 000
18. 150
19. 422
20. 133

Day 2

1. $^1/_{32}$
2. 3.1
3. 3.4
4. 0.4
5. 500
6. $9.0\overline{9}\%$
7. [h, o, e, s]
8. Slide, jump, slide
9. 65
10. 256
11. 10 000
12. $^{10}/_3$
13. $V = {}^4/_3\, \pi r^3$
14. 
15. $1^3/_4$
16. 30 minutes
17. 6
18. 200
19. 648
20. 134

Day 3

1. $^1/_{64}$
2. 7.01
3. 2.95
4. 0.12
5. 0.5
6. $11.\overline{1}\%$
7. $^2/_3$
8. [r, t, e]
9. 75
10. 576
11. 5 000 000
12. $^3/_4$
13. $V = \pi r^2 h$
14. 6 cm
15. 600 g
16. 15 minutes
17. 6.320
18. 103
19. 246
20. 10

Day 4

1. $^1/_{128}$
2. 4.7
3. 3.995
4. 0.0004
5. 0.25
6. 5%
7. $40
8. [u, n]
9. 80
10. 361
11. 800 000
12. $^{11}/_{20}$
13. $V = {}^1/_2\, bhl$
14. d = 10 cm
15. 15°
16. 7.5 minutes
17. 6.321
18. 107
19. 123
20. 135

Week 23

Day 1

1. $^1/_{16}$
2. 4.022
3. 2.3
4. 0.9
5. 10
6. 0.5%
7. 2 : 3
8. [s]
9. 30
10. 324
11. 9
12. $^9/_{20}$
13. $V = {}^1/_3\ \pi r^2 h$
14. Teacher check; e.g. 6, 28, 496
15. $0.\bar{2}$
16. 3 hr
17. $144
18. 63.3
19. 0.8
20. 136

Day 2

1. $^1/_{81}$
2. 5.698
3. 5.4
4. 0.6
5. 10
6. 50%
7. 1 : 1 : 3
8. [e, a]
9. 40
10. 196
11. 0.004 (4 thousandths)
12. $^{13}/_{20}$
13. $V = {}^1/_6\ lwh$
14. Perfect numbers are positive integers that are the sum of their positive divisors, not including themselves
15. $0.\bar{3}$
16. six hours
17. $128
18. 0.633
19. 156
20. 137

Day 3

1. $^1/_{729}$
2. 111.1
3. 5.7
4. 0.006
5. 10
6. $0.\bar{4}$
7. Teacher check
8. $275
9. 60
10. 13
11. 0.0004 (4 ten thousandths)
12. $^1/_6$
13. $V = l^3$
14. astrolabe
15. slide, jump, slide
16. 12 hours
17. $280
18. 0.3
19. 180
20. 18

Day 4

1. $^1/_{2187}$
2. 90.9
3. 6.9
4. 0.0004
5. 10
6. $55.\bar{5}\%$
7. [a]
8. $550
9. 70
10. 16
11. 0.04 (4 hundredths)
12. $^1/_{12}$
13. $V = lwh$
14. 1.6
15. slide, jump, slide, jump, jump, slide, jump, slide
16. 18 hours
17. $72
18. 600
19. 3.4
20. 138

Week 24

Day 1

1. $^1/_{256}$
2. 40.03
3. 39.97
4. 1.2
5. 1333 $^1/_3$
6. –6
7. 2.0
8. [t]
9. 125
10. 6.78%
11. 0.5 (5 tenths)
12. $^1/_{10}$
13. $V = {}^1/_3\ lwh$
14. 25
15. $814.78
16. $^1/_3$
17. $120
18. 5.8
19. 7.995
20. 139

Day 2

1. $^1/_{3125}$
2. 40.02
3. 39.98
4. 0.8
5. 2000
6. 8
7. 2.0
8. [i, e]
9. 175
10. 6.97%
11. 0.00002 (2 hundred thousandths)
12. $^1/_{100}$
13. $V = {}^1/_3\ l^2 h$
14. 23
15. trapezium
16. $^2/_3$
17. $180
18. 66 000
19. 4.95
20. 140

Day 3

1. 64
2. 0.23
3. 0.17
4. 0.006
5. 6 $^2/_3$
6. 45°
7. 1.1
8. 17
9. 75
10. 6.92%
11. 0.000001 (1 millionth)
12. No
13. $^1/_3$, height
14. not a subset of
15. 45°
16. 3 hours
17. 100
18. 13
19. 311
20. 30

Day 4

1. 128
2. 0.202
3. 0.198
4. 0.0004
5. 100
6. 30°
7. 1.6
8. 12
9. 60
10. 6.89%
11. 0.0000009 (9 ten millionths)
12. No
13. base, height
14. congruent or identical to
15. three
16. 45 minutes
17. 20.0
18. 17
19. 300
20. 141

Answers

Week 25

Day 1

1. 16
2. 3
3. 12.5
4. 1.5
5. 10
6. $^1/_{36}$
7. 1.1
8. $^1/_{1000}$
9. 30
10. 6.1%
11. 27
12. No (It has an infinite number.)
13. $A = bh$
14. $x = 22$
15. 3, 7
16. 6 minutes
17. 9.99
18. 71
19. 218
20. 142

Day 2

1. 32
2. 10.99
3. 13.4
4. 1
5. 10
6. $^1/_6$
7. 2.5
8. $^1/_{10\,000}$
9. 36
10. 5.1%
11. 11
12. No (Squares have more.)
13. $A = {}^1/_2\, bh$
14. •⟶
15. 21
16. 12 minutes
17. 10
18. 97
19. 269
20. 143

Day 3

1. $0.1 = {}^1/_{10}$
2. 3.1
3. 2.95
4. 0.006
5. 10
6. –6
7. 1.0
8. 4 cm
9. 120
10. 6.2%
11. 15
12. [1, 3, 5]
13. $A = 6l^2$
14. $^1/_4$
15. is an element of
16. 9 minutes
17. 20.0
18. 377
19. $2.50
20. 93

Day 4

1. $0.01 = {}^1/_{100}$
2. 3.3
3. 3.995
4. 0.0004
5. 10
6. –9
7. 1.1
8. 18 cm
9. 210
10. 6.3%
11. 13
12. [2]
13. $A = 2\pi r\,(r + h)$
14. $^1/_4 \times {}^{12}/_{51} = {}^1/_{17}$
15. a line
16. 18 minutes
17. 10
18. 468
19. $3.35
20. 144

Week 26

Day 1

1. $^1/_{16}$
2. 20.01
3. 19.99
4. 0.2
5. 2000
6. 12 cm
7. 1.0
8. rectangle
9. 600
10. 7.2%
11. 18
12. approximately
13. $A = l^2$
14. $^3/_{52}$
15. is not an element of
16. $^1/_{16}$
17. 5.0
18. 89
19. 922
20. 145

Day 2

1. $^1/_{32}$
2. 20.04
3. 19.96
4. 0.8
5. 500
6. 10 cm
7. 1.0
8. square
9. 6
10. 7.7%
11. 14
12. is not equal to
13. therefore
14. $^{49}/_{52}$
15. (a) mean
16. $^1/_{64}$ ($^1/_4 \times {}^1/_4 \times {}^1/_4$)
17. 5
18. 79
19. 1800
20. 146

Day 3

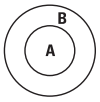
1. $^1/_{144}$
2. 3.7
3. 0.45
4. 0.006
5. 10
6. –3
7. Teacher check
8. [2, 4]
9. 112 kg of CO_2
10. 6.6%
11. 2500
12. 2
13. $6p^5$
14. 1.1
15. $20:$100
16. $^{51}/_{52}$
17. 18.0
18. 396
19. 40 002
20. 12

Day 4

1. $^1/_{64}$
2. 3.2
3. 3.495
4. 0.0004
5. 10
6. 2
7. (a) line graph
8. [4, 8]
9. 500
10. 16.5%
11. 2499
12. 2
13. $6z^6$
14. 1.1
15. $5:$25
16. A line segment where A and B are end points
17. 7.0
18. 396
19. 10 012
20. 147

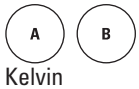
Week 27

Day 1

1. $^1/_{16}$
2. 20.03
3. 19.97
4. 0.6
5. $666.\overline{6}$
6. 2.5 km
7. $-6 + 6x$
8. (b) nominal
9. -2
10. 56.5%
11. 6.45 am
12. 

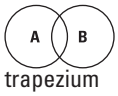
13. degrees Celsius
14. @
15. $^9/_{16}$
16. 24 minutes
17. 6.32
18. 90 004
19. $2.50
20. 148

Day 2

1. $^1/_{32}$
2. 20.02
3. 19.98
4. 0.4
5. 1000
6. 7.5 km
7. $-15 + 20y$
8. (b) nominal
9. 0
10. 65.5%
11. 6.40 am
12. 

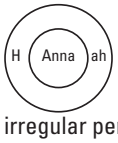
13. Kelvin
14. MCMXXXII
15. $^3/_8$
16. 36 minutes
17. 6.3
18. 442
19. $3.40
20. 149

Day 3

1. $^1/_{64}$
2. 3.45
3. 3.05
4. 0.014
5. 10
6. 2, 3
7. 70
8. 61
9. -1
10. 76.5%
11. 

12. trapezium
13. 7.05 am
14. 6
15. 1987
16. 42 minutes
17. 36.4
18. 23
19. 28 922
20. 58

Day 4

1. $^1/_{128}$
2. 4.525
3. 4.475
4. 0.0016
5. 10
6. 3, 4
7. 60
8. 91
9. -1
10. 6.15%
11. 

12. irregular pentagon
13. 10.05 am
14. 12
15. 1998
16. 48 minutes
17. 6.4
18. 11
19. 247
20. 150

Week 28

Day 1

1. $^1/_{16}$
2. 8.79
3. 2.5
4. 0.6
5. 10
6. $x = {}^1/_2$
7. Teacher check
8. 4, 5
9. 4
10. 4.7%
11. (c) continuous
12. irregular pentagon
13. 2.55 pm
14. 8388
15. 1990
16. $13 per hour
17. 10
18. 17
19. 4 000 002
20. 151

Day 2

1. $^1/_{32}$
2. 7.28
3. 3.4
4. 0.4
5. 10
6. $x = 2.5$
7. 62
8. 9, 10
9. -2
10. 1.5%
11. (d) discrete
12. irregular hexagon
13. 3.55 pm
14. 45
15. 1994
16. $8 per hour
17. 12.9
18. 19
19. 4 000 020
20. 152

Day 3

1. $^1/_9$
2. 5.1
3. 2.95
4. 0.006
5. 1
6. 24
7. 1.6
8. -2
9. 10, 11
10. 6.65%
11. 405
12. irregular decagon
13. 20 (2 tens)
14. 11.55 am
15. 1996
16. $24 per hour
17. 13
18. 7
19. 40 202
20. 22

Day 4

1. $^1/_{27}$
2. 4.005
3. 3.995
4. 0.04
5. 10
6. 66
7. 1.5
8. -1
9. 4, 5
10. 3.5%
11. 15, 21
12. irregular octagon
13. 3 (3 ones)
14. 11.50 am
15. 1935
16. $23 per hour
17. 13.0
18. 11
19. 42 002
20. 153

Answers

Week 29

Day 1

1. $^1/_{256}$
2. 3.51
3. 2.85
4. 0.6
5. 1
6. 16
7. 10, 11
8. 65, 67
9. 1
10. 2.5%
11. 0.4 (4 tenths)
12. irregular hexagon
13. 80%
14. 10.50 am
15. 1956
16. $16 per hour
17. one
18. 37
19. 884
20. 154

Day 2

1. $^1/_{125}$
2. 10.5
3. 3.84
4. 0.4
5. 1
6. 15
7. 8, 9
8. 59 (common year) *or* 60 (leap year)
9. 3
10. 9.5%
11. 0.05 (5 hundredths)
12. irregular decagon
13. 550%
14. 11.50 pm
15. 1963
16. $19 per hour
17. one
18. 43
19. 506
20. 155

Day 3

1. $^1/_{256}$
2. 0.36
3. 8.45
4. 0.006
5. 30
6. 12
7. 6, 7
8. 62
9. –3
10. 6.5%
11. Yes
12. irregular pentagon
13. 60%
14. 6.35 pm
15. 2008
16. $18 per hour
17. three
18. 103
19. 504
20. 14

Day 4

1. $^1/_{128}$
2. 0.99
3. 4.197
4. 0.044
5. 1
6. 6
7. 6, 7
8. 61
9. 2
10. 1.1%
11. 130°
12. irregular heptagon
13. 90%
14. 6.45 pm
15. 1999
16. $19 per hour
17. four
18. 13
19. 496
20. 156

Week 30

Day 1

1. $^1/_{256}$
2. 64.2
3. 2.645
4. 6
5. 20
6. 3
7. 4, 5
8. 650, 670
9. –5
10. 4.5%
11. 8.40 am
12. irregular heptagon
13. 25%
14. 6.35 am
15. 2005
16. $37 per hour
17. 3
18. 43
19. 247
20. 157

Day 2

1. $^1/_{512}$
2. 8.59
3. 3.84
4. 0.22
5. 30
6. 9
7. 3, 4
8. 0.65, 0.67
9. 2
10. 5.4%
11. 10.45 am
12. irregular hexagon
13. 30%
14. 9.35 pm
15. 2001
16. $20 per hour
17. 3.1
18. 67
19. 250
20. 158

Day 3

1. $^1/_{256}$
2. 4.551
3. 2.92
4. 0.05
5. 100
6. 1
7. 3, 4
8. 80 000 (8 ten thousands)
9. –1
10. 3.2%
11. 6.33 am
12. frequency polygon
13. 162
14. 95%
15. 1926
16. 1 : 20
17. three (3.14)
18. 29
19. 40 804
20. 30

Day 4

1. $^1/_{128}$
2. 5.73
3. 3.985
4. 0.005
5. 100
6. 7
7. 3, 4
8. 0.008 (8 thousandths)
9. –1
10. 1.6%
11. 6.50 am
12. True
13. 243
14. 85%
15. 2004
16. $17 per hour
17. three
18. 127
19. 365
20. 159

Week 31

Day 1

1. $^1/_{16}$
2. 1.16
3. 2.8
4. 1.4
5. 100
6. –7
7. 0.0625
8. 20 (2 tens)
9. 7
10. 6.8%
11. 0.006 (6 thousandths)
12. line graph
13. $6^1/_4$ *or* 6.25
14. 28%
15. 6.40 am
16. 1 : 6
17. 3.14
18. Younger sibling = 1 year old
    Older sibling = 5 years old
19. 429
20. 160

Day 2

1. $^1/_{32}$
2. 0.88
3. 3.6
4. 0.8
5. 100
6. –9
7. 400
8. 7000 (7 thousands)
9. –1
10. 6.7%
11. 100 (1 hundred)
12. pie/sector/circle
13. $12^1/_4$ *or* 12.25
14. 20%
15. 5.40 am
16. $16 per hour
17. 3
18. Younger sibling = 2 years old
    Older sibling = 10 years old
19. 422.5
20. 161

Day 3

1. $^1/_{36}$
2. $^4/_9$
3. 2.905
4. 0.006
5. 100
6. –3
7. Teacher check
8. 121
9. –4
10. 7.6%
11. 12.45 am
12. 0.02 (2 hundredths)
13. 50%
14. 48
15. 2056
16. 1 : 4
17. four
18. Younger sibling = 3 years old
    Older sibling = 4 years old
19. 402.2
20. 18

Day 4

1. $^1/_{49}$
2. $^1/_2$
3. 3.991
4. 0.0002
5. 100
6. –9
7. histogram
8. 0.0001
9. –1
10. 9.6%
11. 6.45 pm
12. 0.4 (4 tenths)
13. 75%
14. 27
15. 2020
16. $15 per hour
17. 3
18. Younger sibling = 5 years old
    Older sibling = 6 years old
19. 400.22
20. 162

Week 32

Day 1

1. $^1/_{64}$
2. 3.49
3. 2.3
4. 0.6
5. 100
6. $1600
7. 96 m^2
8. 0.09
9. –3
10. 8.75%
11. 6.45 am
12. (c) histogram
13. 45%
14. 24
15. 2040
16. 1 : 23
17. pi
18. Younger sibling = 6 years old
    Older sibling = 8 years old
19. 401.5
20. 163

Day 2

1. $^1/_{81}$
2. 2.48
3. 3.7
4. 1
5. 100
6. $1 344 000
   (**Note:** 1st edition misprint. Answer would be $5250 using the hint. Correct answer is $1 344 000.)
7. 108 m^2
8. 4.84
9. –8
10. 8.65%
11. 11.45 am
12. histogram
13. 65%
14. 40
15. 2019
16. $13 per hour
17. golden ratio
18. Younger sibling = 6 years old
    Older sibling = 10 years old
19. 227.5
20. 164

Day 3

1. $^1/_{121}$
2. 0.85
3. 2.95
4. 0.006
5. 1000
6. 15
7. Teacher check
8. 30.25
9. –3 ($8 + n = 5$)
10. 8.5%
11. 10%
12. A line made by joining the midpoints of the tops of the histogram bars
13. 240 km
14. 48
15. 2018
16. 1 : 30
17. golden
18. 19
19. 150.4
20. 14

Day 4

1. $^1/_{144}$
2. 0.354
3. 3.995
4. 0.0004
5. 1000
6. 48
7. 132 m^2
8. 26.01
9. –4
10. 8.6%
11. 15%
12. The combined area of the bars
13. Louis 18
14. 52
15. 2015
16. $12 per hour
17. 1.62
18. 23
19. 171.2
20. 165

Answers

Week 33

Day 1

1. $^1/_{25}$
2. 5.78
3. 2.75
4. 2.6
5. 1000
6. 4
7. 27.04
8. about $260
9. –3
10. 8.9%
11. 12
12. $y° = 136°$
13. point
14. George 6
15. 2009
16. 1 : 30
17. infinite climbing pentagrams
18. 13
19. 291.2
20. 166

Day 2

1. $^1/_{216}$
2. 0.99
3. 3.4
4. 0.4
5. 1000
6. 0.0625
7. 28.09
8. about $390
9. –4
10. 8.25%
11. 8
12. $x° = 105°$
13. infinite amount
14. Edward 8
15. 2009
16. $11 per hour
17. Younger sibling = 4 years old
    Older sibling = 5 years old
18. 17
19. 172.5
20. 167

Day 3

1. $^1/_{343}$
2. 25.98
3. 2.95
4. 0.006
5. 100
6. $x = 22$
7. 29.16
8. about $624
9. –1
10. 6.9%
11. 0.1
12. $w° = 60°$
13. Pascal's triangle
14. Henry 8
15. 2023
16. 1 : 20
17. Younger sibling = 16 years old
    Older sibling = 20 years old
18. Numbers that can not be expressed as ratios of integers.
19. 78
20. 2

Day 4

1. $^1/_{216}$
2. 2.30 m
3. 3.995
4. 0.0004
5. 100
6. $x = 19$
7. 30.25
8. about $832
9. –6
10. 7.9%
11. $^1/_3$
12. $z° = 130°$
13. It is an equiangular spiral
14. William 4
15. 2012
16. $10/hr
17. Younger sibling = 15 years old
    Older sibling = 20 years old
18. No
19. 75
20. 168

Week 34

Day 1

1. $^1/_{16}$
2. 12
3. 2.5
4. 0.6
5. 100
6. $x = 22$
7. 31.36
8. about $15 600
9. 294 cm^2
10. 
11. 8.00 am
12. $y° = 125°$
13. 800%
14. 1066
15. 2016
16. 1 : 5
17. Younger sibling = 12 years old
    Older sibling = 15 years old
18. two
19. 123.2
20. 169

Day 2

1. $^1/_{1024}$
2. 13.51
3. 3.4
4. 0.4
5. 100
6. $x = 36$
7. 32.49
8. about $7800
9. 8 cm^3
10. $289.80
11. 7.55 am
12. $x° = 135°$
13. 200 %
14. 11 years
15. 2028
16. $9 per hour
17. Younger sibling = 9 years old
    Older sibling = 12 years old
18. Yes
19. 14 433
20. 170

Day 3

1. $^1/_{2048}$
2. 1
3. 2.95
4. 0.12
5. 100
6. 150 cm^2
7. 33.64
8. about $780
9. 4
10. 6.99%
11. 8.45 am
12. $a° = 125°$
13. 36
14. MDLVIII – MDCIII
15. 2032
16. 1 : 40
17. 1 : 7
18. 97
19. 422
20. 38

Day 4

1. $^1/_{4096}$
2. 5.5
3. 3.995
4. 0.0032
5. 100
6. 216 cm^2
7. 34.81
8. 200 weekdays or 40 weeks
9. 2
10. 7.99%
11. 7.30 am
12. $b° = 135°$
13. 18
14. 100 CE
15. 2030
16. $8 per hour
17. 2 : 5
18. 101
19. 26
20. 171

Week 35

Day 1

1. $^1/_4$
2. 10.054
3. 2.5
4. 0.6
5. 1000
6. No
7. 4.41
8. about $1664
9. 360°
10. 46.7 cm^3
11. (b) negative
12. 8.50 am
13. 8%
14. 24 000
15. 2042
16. 1 : 30
17. 2 : 7
18. 67
19. 14 422
20. 172

Day 2

1. $^1/_9$
2. 10.382
3. 3.4
4. 0.4
5. 1000
6. No
7. 4.84
8. about $1716
9. 540°
10. b = 150°
11. (a) positive
12. 9.05 am
13. 28%
14. 58
15. 2044
16. $8.50 per hour
17. 1 : 14
18. 71
19. 48 422
20. 173

Day 3

1. $^1/_8$
2. 8.8
3. 2.95
4. 0.006
5. 1000
6. 180°
7. Incorrect
8. about $2184
9. Answers may vary; e.g. circle, quadrilateral, rotation angle.
10. 77.76 cm^2
11. A 2-D figure with many sides as angles.
12. (c) SSA
13. 0.8%
14. 60
15. 2046
16. 1 : 21
17. 1 : 14
18. Younger sibling = 8 years old
    Older sibling = 10 years old
19. 44 102
20. 2

Day 4

1. $^1/_{27}$
2. 8.8
3. 3.995
4. 0.0004
5. 3000
6. x = V (vertices) – E (edges) + F (faces) = 2
7. 2
8. about $2288
9. 180°
10. 58.24 m^3
11. A 3-D figure with many faces.
12. (b) similar
13. 1%
14. 50
15. 2050
16. $9.50 per hour
17. 1 : 7
18. Younger sibling = 8 years old
    Older sibling = 14 years old
19. 40 403.9
20. 174

Week 36

Day 1

1. $^1/_{256}$
2. 2.22
3. 2.5
4. 0.6
5. 4000
6. 180°
7. 4
8. about $2236
9. DLXXII, 572
10. 2^{-4}
11. Yes
12. 8.25 am
13. 80%
14. 12
15. 2060
16. 1 : 2
17. 2 : 7
18. 53
19. 40 805
20. 175

Day 2

1. $^1/_{64}$
2. 5
3. 3.4
4. 0.4
5. 2000
6. 90°
7. 5
8. about $2392
9. MCDL, 1450
10. 95.92 m^2
11. Yes
12. 9.00 am
13. 8%
14. 12
15. 2070
16. Older sibling = 8 years old
    Younger sibling = 6 years old
17. 1 : 14
18. 59
19. 40 804.2
20. 176

Day 3

1. 8
2. 7.1
3. 2.95
4. 0.006
5. 2000
6. 11, 13, 17, 19
7. Teacher check
8. about $2496
9. 450
10. 8.99%
11. 1, 2, 3, 5, 6, 10, 15, 30
12. 10.35 am
13. 0.8%
14. $^3/_8$
15. 2080
16. 1 : 2
17. 48 m^2
18. 103
19. $5^2/_5$
20. 22

Day 4

1. 16
2. 1.2
3. 3.995
4. 0.0004
5. 200
6. 23, 29
7. kilolitres
8. about $2444
9. 400
10. 9.99%
11. 1, 31
12. 9.10 am
13. 1%
14. $^4/_5$
15. 2090
16. Older sibling = 15 years old
    Younger sibling = 6 years old
17. 60 m^2
18. 107
19. 13
20. Yes

Answers

Week 37

Day 1

1. 16
2. 0.31
3. 2.5
4. 0.6
5. 200
6. XIII
7. $y = 5$
8. about $1300
9. x is greater than 2
10. about 1650 m^3
11. No
12. (b) similar
13. 2%
14. $^4/_5$
15. 2100
16. 1 : 10
17. 1 : 70
18. 10.10 am
19. 17
20. 365 days, 5 hours, 48 minutes and 46 seconds

Day 2

1. 32
2. 0.33
3. 3.4
4. 0.4
5. 110
6. CIV
7. y = –2
8. about $2080
9. x is less than 2
10. kilolitre
11. Yes (2 odd vertices)
12. (a) congruent
13. 0.3%
14. $^4/_5$
15. 2110
16. 54 minutes
17. 1 : 7
18. 10.30 am
19. 19
20. 10 months

Day 3

1. 64
2. 1.2
3. 2.95
4. 0.006
5. 1100
6. dodecagon
7. cylinder
8. about $208
9. x is greater than 2
10. add
11. 15 700 cm^2 (assuming pi = 3.14)
12. three
13. 25%
14. $^2/_3$
15. 2222
16. 1 : 10
17. 2 : 7
18. $750
19. 23
20. –14

Day 4

1. 128
2. 0.21
3. 3.995
4. 0.0004
5. 1100
6. heptagon
7. three
8. about $416
9. x is less than 2
10. a trapezoidal prism
11. (a) irregular prism
12. 32 cm^2
13. 55%
14. $^2/_3$
15. 3010
16. 57 minutes
17. 2 : 7
18. $3750
19. 29
20. July, August

Week 38

Day 1

1. $^1/_2$
2. 1.0
3. 2.5
4. 0.6
5. 11 100
6. eight
7. Teacher check
8. about $9880
9. Teacher check
10. $2\pi r$ *or* πd
11. $2\pi r$ *or* πd
12. 12 m
13. 6.55 am
14. 9
15. 2055
16. 1 : 20
17. 2 : 7
18. 5
19. Gregorian
20. $x = 4$ *or* -4

Day 2

1. $^1/_4$
2. 1.1
3. 3.4
4. 0.4
5. 11 100
6. 12
7. 84 m^2
8. about $5720
9. Teacher check
10. height
11. concentric circles
12. 6.28 km
13. 7.55 am
14. $4^1/_2$
15. 2069
16. $^4/_5$
17. 1 : 21
18. 3
19. Pope Gregory XIII
20. $x = 5$ *or* -5

Day 3

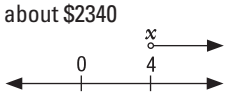
1. $^1/_4$
2. 1.4
3. 2.95
4. 0.006
5. 100
6. Yes
7. Answers will vary; e.g. cereal box, dice
8. about $6760
9. Teacher check
10. volume
11. No
12. $x = -4$
13. 8.55 am
14. 62.5
15. 2053
16. x^4
17. 2 : 21
18. 47
19. $x < 4$
20. 18

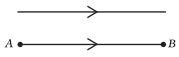
Day 4

1. $^1/_{16}$
2. 1.8
3. 3.995
4. 0.0004
5. 20
6. SSS
7. six
8. about $9100
9. Teacher check
10. πr^2
11. Yes
12. $y = -2$
13. 3.55 am
14. 125
15. 2054
16. x^7
17. 2 : 7
18. 31
19. $x < 4$
20. No

Week 39

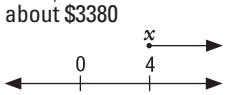
Day 1

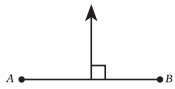
1. $^1/_8$
2. 495
3. 2.5
4. 0.6
5. 80
6. SAS
7. Teacher check
8. about $2340
9. 

10. square metre
11. 49
12. 30°
13. 9.55 am
14. 72
15. 2021
16. four years
17. Father = 45 years old
    Son = 10 years old
18. 7
19. 

20. Yes

Day 2

1. $^1/_{64}$
2. 17.35
3. 3.4
4. 0.4
5. 50 000
6. ASA *or* AAS
7. $365\,^1/_4$ days
8. about $3380
9. 

10. space
11. 81
12. 108°
13. 12.55 am
14. 65
15. 2011
16. three
17. Father = 35 years old
    Son = 10 years old
18. 61
19. 

20. No

Day 3

1. $^1/_{256}$
2. 0.7
3. 4.95
4. 0.006
5. 110
6. four
7. 1901
8. about $4420
9. $5.38
10. circles, rectangle
11. Yes
12. x° = 144°
13. 11.55 pm
14. 24
15. 4010
16. $^1/_3$
17. Mother = 40 years old
    Son = 10 years old
18. 37
19. size
20. 42

Day 4

1. $^1/_{16}$
2. 1.1
3. 6.995
4. 0.0004
5. 100
6. 9
7. 2001
8. about $2860
9. $3.33
10. cross-sectional faces
11. Yes
12. x° = 108°
13. 8.55 pm
14. 55
15. 2029
16. $^2/_3$
17. Father = 30 years old
    Daughter = 10 years old
18. 43
19. (b) obtuse
20. No

Week 40

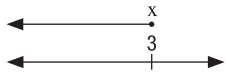
Day 1

1. $^1/_2$
2. 1.3
3. 3.5
4. 2.7
5. 111
6. 1.2
7. Teacher check
8. about $1820
9. 56 litres
10. concave down parabola
11. 4383 days
12. x° = 40°
13. 4.55 am
14. 60
15. 2024
16. $^1/_8$
17. Mother = 72 years old
    Son = 48 years old
18. 103
19. HL
20. Yes

Day 2

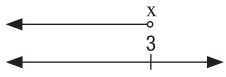
1. $^1/_4$
2. 0.9
3. 1.6
4. 4
5. 111
6. 0.9
7. one
8. about $780
9. 730 litres
10. multiply
11. 5844 days
12. y° = 110°
13. 5.4
14. 70
15. 2038
16. $^1/_{16}$
17. Father = 44 years old
    Son = 22 years old
18. 127
19. AAA
20. No

Day 3

1. $^1/_8$
2. 6.4
3. 2.95
4. 0.006
5. 111
6. SSS
7. three
8. 12 cm × 16 cm × 24 cm
9. 

10. pair
11. 1461 days
12. year
13. 10.55 am
14. 600
15. 2560
16. 14 litres
17. Older brother = 24 years old
    Younger brother = 12 years old
18. 83
19. 10 am
20. 2

Day 4

1. $^1/_{16}$
2. 0.8
3. 3.995
4. 0.0004
5. 1000
6. SAS
7. four
8. 4608 cm^3
9. 

10. (a) litre
11. 2922 days
12. 10
13. 10.55 pm
14. 52.5
15. 3020
16. 28 litres
17. Older sister = 16 years old
    Younger sister = 8 years old
18. 97
19. 10.10 am
20. Teacher check