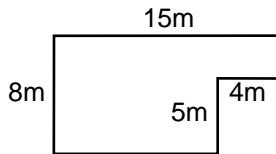# Assessment 1: Units 1–6

Name _____   Date _____

1. List the multiples of 9 from 9 – 100.
2. Find the value for each of these:
   a. 17^2 b. 4^3
3. $(23 \times 4) - 15 + 17 =$
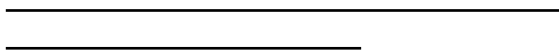4. List the composite numbers between 50 and 70.
5. Complete these tables.

m cm	m	cm
8 45		
	6.53	
		708

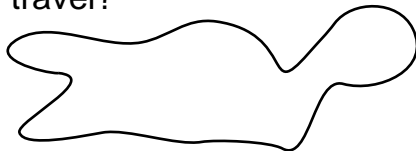| cm mm	cm	mm
9 9		
	10.6	
		2143

6. Look at this garden. Find its area and perimeter.

7. Measure these lines.

   _____

   _____

8. 4m 63cm + 19·8m + 356cm =
9. If a cyclist completes 8 laps of this 3km 565m race circuit, how far will she travel?

10. $2\frac{3}{4} + 7\frac{1}{6}$
11. Complete this table.

Improper fraction	Mixed number
$\frac{19}{4}$	
$\frac{48}{7}$	
	$5\frac{2}{9}$

12. Find $\frac{4}{9}$ of €33.75.
13. $\frac{5}{8} \times \frac{6}{25} =$
14. $8 \div \frac{1}{3} =$
15. Share the prize money of €1,500 in the ration 1:2:3 giving the largest share to Alan and the smallest amount to Seán.

   Alan   Sarah   Seán

16. What are the next three terms in this sequence?
    5·8, 8·2, 10·6, __, __, __
17. Find the cost of 1·3kg of meat if it costs €2·43 per kg. Give answer correct to nearest cent.
18. How many bags of sweets each weighing 1.5kg can be filled from this container?

   40·5kg
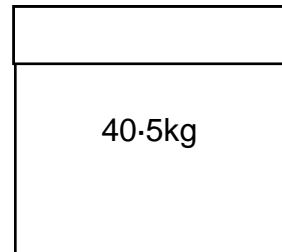
19. Complete this table:

| Original Price	Discount	Percentage Discount	Sale Price
€120		$12\frac{1}{2}\%$	
€80	€30		
€500			€425

20. If €1 is worth US$0·90, how much would an American tourist pay for a jumper costing €85.
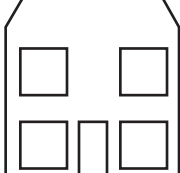
Score: [__/20]

Name _____

Date _____

1. List the prime numbers between 1 and 30.
   What are the other numbers called?

2. (15m 23cm + 9·41m + 80·7cm) − 741cm =

3. a. $3\frac{1}{2} + 2\frac{3}{4} =$ b. $4\frac{2}{5} - 1\frac{7}{10} =$

4. 4613 ÷ 21 =

5. Which of these is better value and why?
   a. 9kg of potatoes for €7·74
   b. 11kg of potatoes for €9·79

6. Measure the angles in this triangle and identify what type each one is.
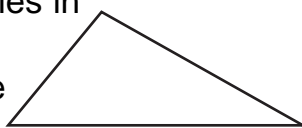
7. How many horizontal lines can you see in this shape?

8. Construct these angles:
   a. 45°   b. 153°

9. Identify these shapes:
   a.
   b.   c.   d.   e.
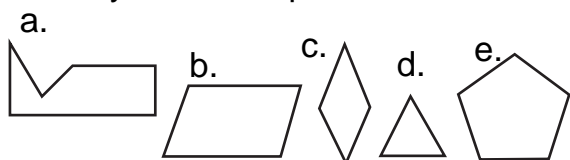
10. Complete this table.

Radius	Diameter
6·4cm	
	88mm
4·62m	
	15cm 4mm
25·43m	

11. What are the missing angles in these shapes?

90°
106°
15°
121°

12. Complete this table.

Fraction	Decimal	Percentage
		1%
	0·875	
$\frac{5}{9}$		
		$12\frac{1}{2}\%$

13. In a school of 468 pupils $33\frac{1}{3}\%$ are boys. How many girls are in the school?

14. When 600ml of orange is poured from this bottle what percentage is left?

15. Find the average weight of these people.

    A   B   C
    65·138kg   72·163kg   81·117kg

16. If the average speed of a bus is 56kmh how far will it travel in $2\frac{1}{2}$ hours?

17. The average of 4 numbers is 65. If the total of three of the numbers is 192, what is the fourth number?

18. Complete this table.

12 hour	24 hour
12:00 p.m.	
	16:45
	21:30
7:40 a.m.	
12:30 a.m.	

19. A plane leaves Shannon bound for New York at 13:10 local time. If the flight takes $7\frac{1}{2}$ hours, at what time will it land in New York (local time)? New York is 5 hours behind GMT.

20. A farmer spends 4 hours 40 minutes working in the morning and 5 hours 55 minutes working in the afternoon. How long does he work in total?

Score: $\frac{}{20}$

Name _____   Date _____

1. Find the value of 41^2.
2. How much would it cost to put a fence around a garden 12m long, 8m wide, if fencing costs €25 per metre?
3. Find $\frac{3}{4}$ of €1,982.
4. $(48{\cdot}31 - 6.7) \times 2{\cdot}4 =$
5. What change will a shopper receive from €50 after paying the following bill?
   6kg of turkey @ €3·90 per kg
   3 cans of soup @ €1·40 per can
   5 loaves of bread @ €1·30 per loaf
6. What size and what kinds of angle are formed by the hands of a clock at these times?
   a. 9:00   b. 5:30
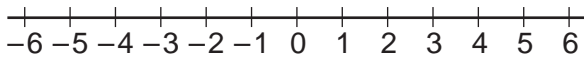
7. What size are the missing angles?

   40°
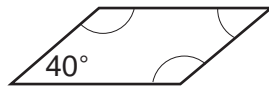
8. A boy spent €24 on a CD. If he had €50 at first, what percentage did he spend?
9. Temperatures over 7 days.

Sunday 12˚C	Thursday 13˚C
Monday 14˚C	Friday 12˚C
Tuesday 17˚C	Saturday 11˚C
Wednesday 13˚C	

   What was the average temperature (correct to one decimal place)?
   On how many days was the temperature above average?
10. A soccer match started at 17:45. It lasted 90 minutes and there was a half-time break for 16 minutes. Stoppage time totalled 8 minutes. At what time did the match finish?
11.

    −6 −5 −4 −3 −2 −1 0 1 2 3 4 5 6

    Use the number line to help with the following question.
    a. $^+3 + {}^-4$ b. $^-6 - {}^+2$ c. $^+2 - {}^+4$
    d. $^+5 + {}^-5$ e. $^-4 + {}^+3$

12. If a thermometer reads $^-3$˚C in the morning and rises to $^+10$˚C by evening, how many ˚C did the temperature rise?
13. Find the value of the variable in these equations:
    a. $5c + 3 = 48$
    b. $42 \div y = 4 + 2$
14. If $a = 5$, $b = 9$, $c = 10$ find the value of these:
    a. $2a + b - c$ b. $bc - a$
15. Complete this table.

 | kg | g | kg | g |
    |----|----|----|----|
    | 7 | 145 | | |
    | | | | 13461 |
    | | | 9·274 | |

16. If a can of beans contains 454g of beans what weight would 36 cans contain? (Answer in kg.)

17. Look at this map of Bird Island.
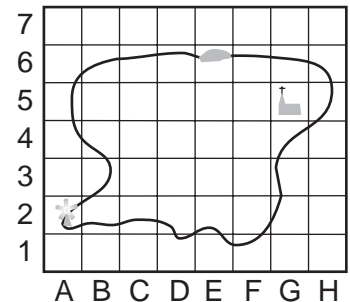
    At what position is:
    a. Church   b. Lighthouse
    c. North Head
18. Mark these points on a grid:
    a. (3,3)   b. (5,2)   c. (2,6)
    If you connect the points what type of triangle will you make?
19. What 3-D shape has 6 equal faces? How many edges does it have? How many vertices?
20. Which of these shapes are prisms?
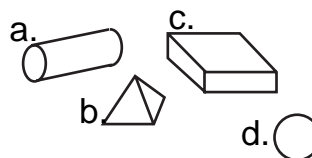
    Score: $\frac{}{20}$

Name _____   Date _____

1. List the factors that are common to the numbers 18 and 27.

2. Measure these lines and record your results in cm.
   a. _____

   b. _____

3. $\frac{1}{4} + \frac{2}{3} + 2\frac{1}{6} =$

4. A builder mixes cement and sand in a ratio of 4:1 to make concrete. If she makes 240kg of concrete, how much cement and sand will she need?
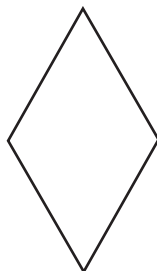
5. Complete this table.

Original price	Discount	% Discount	Selling price
€250	€50		
	€10		€70
€171·20		$37\frac{1}{2}$%	

6. a. If a ship is sailing south and turns anticlockwise 135°, in what direction will it be sailing?

   b. What is the size of the angle between N and SW turning clockwise?
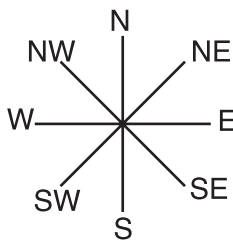
7. What is this shape? Measure its sides and angles.

8. Complete this table.

Fraction	Decimal	Percentage
$\frac{2}{7}$		
	0·14	
		$66\frac{2}{3}$%

9. A worker is paid €463 per week. If an increase in pay of 9% is granted, what will the new wage be?

10. Find the average weight of these dogs:

Poodle	Collie	St Bernard	Red Setter
10kg 335g	28·364kg	55kg 39g	22·134kg

11. Complete this table.

| Time	Speed	Distance
$1\frac{1}{2}$hrs	140kmh	
	55kmh	165km
5hrs		2265km

12. A man has €35 in his bank account. If he writes a cheque for €55 and pays a bill for €108, what is the balance of his account?

13. Find the value of the variable in these equations.
    a. ☐ − 15·8 = 77
    b. 19 × ☐ = 475

14. Find the cost of this bill.
    2.5kg of potatoes @ €1·52 per kg
    1.8kg of bananas @ €1·35 per kg

15. Plot these points on a grid.
    (1, 1) (2, 3) (4, 1) (5, 3)
    What shape do they make?

Name _____   Date _____

16. Write a sequence of square numbers from 1 to 100.

17. Look at this graph and answer the questions about it.
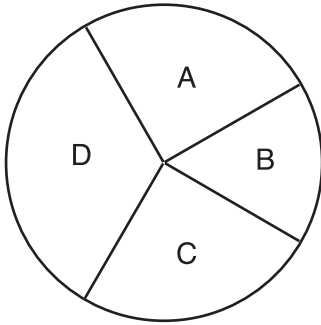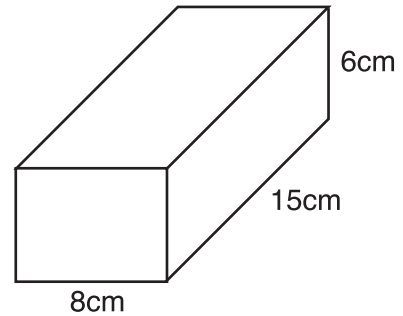

Favourite chocolate bars.
A = Choca   B = Krispa
C = Milko   D = Toffa

a. If 156 children were surveyed, how many chose each section?

b. How many more preferred Toffa to Krispa?

18. Complete this table.

Length	Width	Area	Perimeter
6·4m	2·5m		
36cm		756cm^2	
36m			102m

19. Look at this container. How much liquid can it hold? (answer in ml)

6cm
15cm
8cm

20. A bag contains numbers from 1 to 50. If one ball is picked at random:

a. What is the chance it is a multiple of 4?

b. What is the chance it is an odd number?
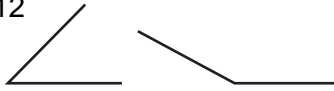
c. What is the chance it is a prime number?

Score: $\frac{}{20}$
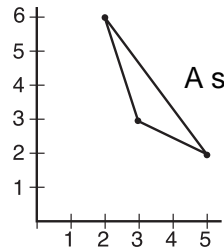
Assessment 1 Answers

1. 9, 18, 27, 36, 45, 54, 63, 72, 81, 90, 99
2. a. 289   b. 64
3. 94
4. 51, 52, 54, 55, 56, 57, 58, 60, 62, 63, 64, 65, 66, 68, 69
5. 8·45m, 845cm, 6m 53cm, 653cm, 7m 8cm, 7·08m, 9·9cm, 99mm, 10cm 6mm, 106mm, 214cm 3mm, 214.3cm
6. 100m², 46m
7. 7·4cm, 4.7cm
8. 27·99m
9. 28·52km
10. $9\frac{11}{12}$
11. $4\frac{3}{4}$, $6\frac{6}{7}$, $\frac{47}{9}$
12. €15
13. $\frac{3}{20}$
14. 24
15. €750, €500, €250
16. 13, 15·4, 17·8
17. €3·16
18. 27
19. €15, €105, $37\frac{1}{2}$%, €50, €75, 15%
20. $76·50

Assessment 2 Answers

1. 2, 3, 5, 7, 11, 13, 17, 19, 23, 29. The others are composite numbers.
2. 18.037m
3. a. $6\frac{1}{4}$ b. $2\frac{7}{10}$
4. 219 r 14
5. A is better value.
    a. 1kg costs €0·86
    b. 1kg costs €0·89
6. 50°, 100°, 30°, acute, obtuse, acute
7. 12
8.
9. a. hexagon   b. parallelogram
    c. rhombus   d. isosceles triangle
    e. regular pentagon
10. 12·8cm, 44mm, 9·24m, 7cm7mm, 50·86m
11. a.162°   b. 44°
12. $\frac{1}{100}$, 0·01, $\frac{7}{8}$, $87\frac{1}{2}$%, 0·56, 56%, $\frac{1}{8}$, 0·125
13. 312 girls
14. 70%
15. 72·806kg
16. 140km
17. 68
18. 12:00, 4:45pm, 9:30pm, 07:40, 00:30
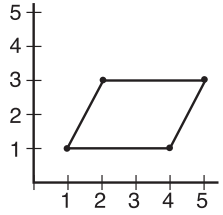19. 15:40
20. 10 hours 35 mins

Assessment 3 Answers

1. 1,681
2. €1,000
3. €1,486·50
4. 99·864
5. €15·90
6. a. 90°, right angle   b. 30°, acute angle
7. 140°, 140°, 40°
8. 48%
9. 13·1°c, 2 days
10. 19:39
11. a. ⁻1   b. ⁻8   c. ⁻2,
    d. 0   e. ⁻1
12. 13°c
13. a. c = 9   b. y = 7
14. a. 9   b. 85
15. 7·145kg, 7145g, 13kg 461g, 13·461kg, 9kg 274g, 9274g
16. 16·344kg
17. a. G5   b. A2   c. E6
18.

   A scalene triangle

19. Cube, 12 edges, 8 vertices
20. a, c

Assessment 4 Answers

1. {1, 3, 9}
2. a. 3·2cm   b. 5·8cm
3. $3\frac{1}{12}$
4. 192kg, 48kg
5. 20%, €200, €80, $12\frac{1}{2}$%, €64·20, €107
6. NE, 225°
7. A rhombus, 2cm, 60°, 120°, 60°, 120°
8. 0·29, 29%, $\frac{7}{50}$, 14%, $\frac{2}{3}$, 0·67
9. €504·67
10. 28·968kg
11. 210km, 3 hours, 453kmh
12. ⁻€128
13. a. 92·8,   b. 25
14. €6·23
15. A parallelogram

16. 1, 4, 9, 16, 25, 36, 49, 64, 81, 100
17. a. A. 39 B. 26 C. 39 D. 52
    b. 26
18. 16m², 17·8m, 21cm, 114cm, 15m, 540m²
19. 720ml
20. a. 6 in 25, 24%
    b. 1 in 2, 50%
    c. 3 in 10, 30%