BROAD HORIZON
TUITION CENTRE

11+ Tuition – Year 5

Week 10 - Online

ANSWERS

Date:

Starter Task – Quick Revision

1. Workout the area and perimeter of this shape **(2 marks)**

2. Workout $\frac{6}{7}$ of 609

522

3. $\frac{3}{7} + \frac{2}{3} =$

23/21

4. Workout the mean of, 7, 8, 9 and 10

8.5

5. What is the median of 7, 11, 8 and 14

9.5

6. $0.1 \times 1000 =$

100

7. $13.2 \div 1000 =$

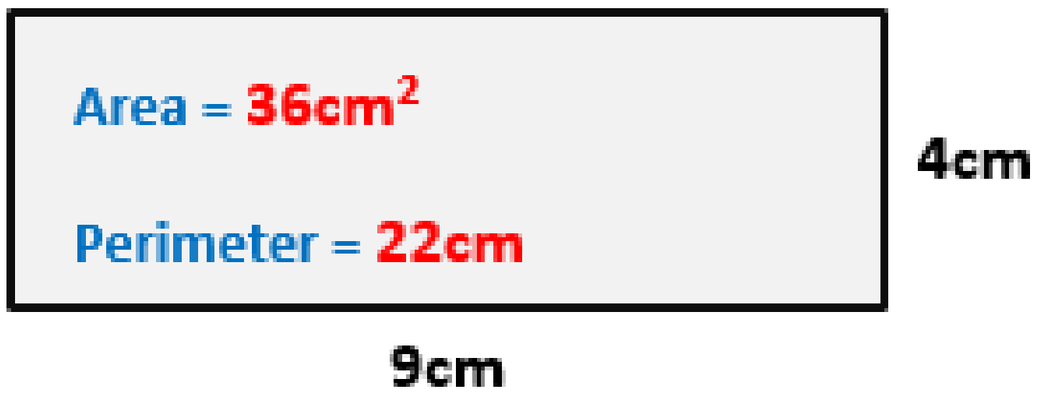
0.0132

8. $2^4 + 36 \div 9 - (4^2 - 7)$ **(2 marks)**

11

Starter Task – Quick Revision

1. Workout the area and perimeter of this shape **(2 marks)**



2. Workout $\frac{2}{5}$ of 510

204

3. Workout $\frac{5}{7}$ of 175

125

4. $3^2 + 10 \times 4 \div 2^3$

14

5. Convert 24% into a fraction (simplify)

6/25

6. What is the median of 9, 2, 5, 13, 6 and 17

7.5

7. 32.75 × 1000 =

32750

8. What is 87 × 6 =

522

9. Convert 0.125 into a fraction (simplify)

1/8

$\frac{\square}{10}$

Converting Decimal Tenths and Hundredths to Fractions

Answers

A. Write these decimals into the place value chart. Read the place value and write the decimal as a fraction. The first question has been completed for you.

Decimal	Place Value Chart			How many tenths?
0.7	Ones		tenths	**7 tenths** = $\frac{7}{10}$
	0	.	7	
0.3	Ones		tenths	**3 tenths =** $\frac{3}{10}$
		.		
zero point two	Ones		tenths	**2 tenths** = $\frac{2}{10}$
		.		
0.4	Ones		tenths	**4 tenths** = $\frac{4}{10}$
		.		
0.1	Ones		tenths	1 **tenth** = $\frac{1}{10}$
		.		
0.9	Ones		tenths	**9 tenths** = $\frac{9}{10}$
		.		
zero point eight	Ones		tenths	**8 tenths** = $\frac{8}{10}$
		.		

Converting Decimals to Percentages **Answers**

Convert the following decimals to their equivalent percentages. The first one has been done for you.

1. **1.51=151%**
2. **0.75=75%**
3. **0.83=83%**
4. **1.75=175%**
5. **0.07=7%**
6. **0.75=75%**
7. **1.43=143%**
8. **1.13=113%**
9. **0.41=41%**
10. **1.64=164%**
11. **1.33=133%**
12. **0.45=45%**
13. **1.72=172%**
14. **0.02=2%**
15. **1.65=165%**
16. **0.43=43%**
17. **0.77=77%**
18. **1.58=158%**
19. **1.06=106%**
20. **0.16=16%**
21. **0.48=48%**
22. **0.91=91%**
23. **1.22=122%**
24. **0.03=3%**
25. **0.93=93%**
26. **0.18=18%**
27. **1.83=183**

Converting Decimals to Percentages **Answers**

Convert the following decimals to their equivalent fractions. Please write the fractions in their simplest form, where possible. The first one has been done for you.

1. **0.86** = $\frac{43}{50}$

2. **0.38=** $\frac{19}{50}$

3. **0.54=** $\frac{27}{50}$

4. **0.06=** $\frac{3}{50}$

5. **0.46=** $\frac{23}{50}$

6. **0.22=** $\frac{11}{50}$

7. **0.87=** $\frac{87}{100}$

8. **0.25=** $\frac{1}{4}$

9. **0.14=** $\frac{7}{50}$

10. **0.32=** $\frac{8}{25}$

11. **0.72=** $\frac{18}{25}$

12. **0.74=** $\frac{37}{50}$

13. **0.70=** $\frac{7}{10}$

14. **0.95=** $\frac{19}{20}$

15. **0.20=** $\frac{1}{5}$

16. **0.80** = $\frac{8}{10}$

17. **0.36=** $\frac{9}{25}$

18. **0.95=** $\frac{19}{20}$

19. **0.12=** $\frac{3}{25}$

20. **0.35=** $\frac{7}{20}$

21. **0.38=** $\frac{19}{50}$

22. **0.45=** $\frac{9}{20}$

23. **0.96=** $\frac{24}{25}$

24. **0.09=** $\frac{9}{100}$

25. **0.61=** $\frac{61}{100}$

26. **0.55=** $\frac{11}{20}$

27. **0.60=** $\frac{3}{5}$

Converting Decimals to Percentages **Answers**

Convert the following decimals to their equivalent fractions. Please write the fractions in their simplest form, where possible. The first one has been done for you.

1. $1.78 = 1\frac{39}{50}$

2. $0.73 = \frac{73}{100}$

3. $0.05 = \frac{1}{20}$

4. $1.65 = 1\frac{13}{2}$

5. $0.08 = \frac{2}{25}$

6. $0.07 = \frac{7}{100}$

7. $1.81 = 1\frac{81}{100}$

8. $1.55 = 1\frac{11}{20}$

9. $1.38 = 1\frac{19}{50}$

10. $1.41 = 1\frac{41}{100}$

11. $0.84 = \frac{21}{25}$

12. $0.22 = \frac{11}{50}$

13. $0.27 = \frac{27}{100}$

14. $1.47 = 1\frac{47}{100}$

15. $1.69 = 1\frac{69}{100}$

16. $1.73 = 1\frac{73}{100}$

17. $0.55 = \frac{11}{20}$

18. $0.05 = \frac{1}{20}$

19. $0.38 = \frac{19}{50}$

20. $1.31 = 1\frac{31}{100}$

21. $1.12 = 1\frac{3}{25}$

22. $1.17 = 1\frac{17}{100}$

23. $0.11 = \frac{11}{100}$

24. $0.71 = \frac{71}{100}$

25. $1.53 = 1\frac{53}{100}$

26. $1.24 = 1\frac{6}{25}$

27. $0.49 = \frac{49}{100}$

Percentages to Decimals **Answers**

Convert the following percentages to their equivalent decimals. The first one has been done for you.

1. 6%=0.06
2. 58%=0.58
3. 74%=0.74
4. 192%=1.92
5. 112%=1.12
6. 10%=0.1/0.10
7. 5%=0.05
8. 183%=1.83
9. 168%=1.68
10. 110%=1.1/1.10
11. 3%=0.03
12. 120%=1.2/1.20
13. 123%=1.23
14. 138%=1.38
15. 57%=0.57
16. 41%=0.41
17. 78%=0.78
18. 87%=0.87
19. 119%=1.19
20. 2%=0.02
21. 135%=1.35
22. 91%=0.91
23. 167%=1.67
24. 1%=0.01
25. 187%=1.87
26. 18%=0.18
27. 83%=0.83

Converting Fractions to Percentages **Answers**

Convert the following fractions to their equivalent percentage. The first one has been done for you.

1 $\frac{8}{100}$ **= 8%**

2. $\frac{42}{100}$ **= 42%**

3. $\frac{27}{100}$ **= 27%**

4. $\frac{49}{100}$ **= 49%**

5. $\frac{22}{100}$ **= 22%**

6. $\frac{71}{100}$ **=71%**

7. $\frac{9}{10}$ **= 90%**

8. $\frac{32}{100}$ **= 32%**

9. $\frac{55}{100}$ **= 55%**

10. $\frac{78}{100}$ **= 78%**

11. $\frac{24}{100}$ **= 24%**

12. $\frac{8}{10}$ **= 80%**

13. $\frac{99}{100}$ **= 99%**

14. $\frac{65}{100}$ **= 65%**

15. $\frac{8}{20}$ **= 40%**

16. $\frac{69}{100}$ **= 69%**

17. $\frac{73}{100}$ **= 73%**

18. $\frac{86}{100}$ **= 86%**

19. $\frac{20}{100}$ **= 20%**

20. $\frac{60}{100}$ **= 60%**

21. $\frac{9}{20}$ **= 45%**

22. $\frac{17}{100}$ **=17%**

23. $\frac{65}{100}$ **= 65%**

24. $\frac{7}{10}$ **= 70%**

25. $\frac{22}{100}$ **= 22%**

Challenge

26. $\frac{4}{5}$ **= 8%**

27. $\frac{13}{20}$ **= 65%**

28. $\frac{5}{25}$ **= 20%**

29. $\frac{45}{50}$ **= 90%**

30. $\frac{5}{100}$ **= 0.0**

Find the Equivalent Fractions Answers

Complete the following fractions to make the fractions equivalent.

Question	Answer
1	4
2	5
3	16
4	5
5	8
6	8
7	1
8	16
9	1
10	6
11	20
12	4

Question	Answer
13	5
14	1
15	6
16	2
17	4
18	10
19	6
20	10
21	5
22	2
23	1
24	6

Answers

Question	Answer
1	49
2	2
3	16
4	48
5	40
6	32
7	60
8	8
9	2
10	8
11	27
12	52
13	14
14	24
15	96

Question	Answer
16	40
17	72
18	44
19	36
20	91
21	97
22	132
23	78
24	42
25	304
26	837
27	117
28	522
29	108
30	384

Answers

Question	Answer
1	72
2	0.5
3	5
4	25
5	21
6	45
7	21
8	2.5
9	32
10	45
11	72
12	14
13	27.5
14	93.5
15	22.5

Question	Answer
16	15
17	18
18	123.5
19	19.5
20	9.5
21	44
22	544
23	345
24	931
25	243
26	77
27	15.5
28	533
29	390
30	480

Answers

Question	Answer
1	35
2	20
3	35
4	7.5
5	60
6	12.5
7	45
8	7.5
9	10
10	10
11	30
12	70
13	30
14	90
15	45

Question	Answer
16	2.5
17	30
18	27.5
19	127.5
20	37.5
21	112.5
22	170
23	12.5
24	290
25	585
26	555
27	7.5
28	307.5
29	440
30	10

Answers

Question	Answer
1	28.4
2	16.8
3	31.2
4	9
5	24.5
6	77.4
7	17.5
8	25.2
9	5.3
10	14.4
11	49.7
12	30.4
13	9.9
14	24.2
15	32.5

Question	Answer
16	13.6
17	10.8
18	87.3
19	1.1
20	48.1
21	185.5
22	342
23	8.5
24	461.7
25	464.1
26	87.3
27	242.5
28	640
29	467.2
30	243

Finding Percentages o| **Amounts Answers**

	Item	Full Price	Sale Price	Challenge (+25°/o Price)
1.	Trainers	£46.20	75°/o = £34.65	£57.75
2.	Book	£12.80	75°/o = £9 .60	£16.00
3.	Hairdryer	£16.40	75°/o = £12.30	£20.50
4.	Mobile phone	£63.60	75°/o = £47.70	£79.50
5.	Tablet	£141.00	75°/o = £10 5. 75	£176.25
6.	Jeans	£28.80	75°/o = £21.60	£36.00
7.	Pencil case	£4.40	75°/o = £3.30	£5.50
8.	T-Shirt	£9.20	75°/o = £6. 90	£11.50
9.	Football	£6.88	75°/o = £5.16	£8.60
10.	Guitar	£32.64	75°/o = £24.48	£40.80

TYPE FIFTEEN:

4
J
16th
SNIOI RIP
A B C D E
DNA
A
o
AT
IS
T
16th
11th
C

TYPE SIXTEEN:

S	U
R	U
J	E
M	J
O	R
K	J
I	R
Q	K
C	X
MO	PR
MG	OE
MM	RO
IG	JF
DG	WS
SR	QT
PT	
IF	
GK	
HZ	
FT	

ASSESSMENT TEST 9

Section 1 — Rotate the Figure

1. A

1he figure has been rotated 90 degrees., cfockiwise. Option l3 isa rota ted eflection. Option Chas the wrong shading .andls, the wron6 shape. Option Dis t:he wrong sha:pe

2. A

The figure has been rot;a,ted 180 degree!?J Option B Isa rotated reflection. Option Cis, the1wron 5hape. Inoption D, the 5hadings of the two inner shapes have 5wapped.

3. D

The figure has been rota,t&:J180 degrees. Inoption A, the large flower is grey. ,fnoption £3 there is an extra flower. Option Cisa rota,tetJreflection

4. D

Tho figure has been rotat&:l 90 degrees cloc.kwlss. ,Options;A .and1Carethe wrong shape. Option Bhas the wrong shadln .

Section 2 — Odd One Out

1. B

In all, other figures) ths hatched e;hape is;at t'1s back

2. A

All other figure5 ha,vesix sides

3. C

In all other figures, the smallest emok.e cloud' i5 directly above the black semicircle.

4. C

In a1' other figures. the top two hearts are 1l30 degree ro,tationeof the bottom two hearts.

5. A

Inall other fi{Juree, the s.mallshape is the sameas, thet:op half of the large shape, o,nlys mafler andadifferent colour: (In A, the shap8 i5 the sameae; a quarter of the large shape.)

Sectio,n 3 ,c omJ>lete tile Series

1. B,

The1wholefigure reflects across ineach 5erles square. The *ehading of the semicircle alternate6 between cross-hatched' and black.*

2. A

The figure rotate§ 90 degrees clockwise Ineach series 9q;uare and the star galnsa'point.

3. C

In each series square, thie whlte cincle gets bl1gger and the whole figure rotates 180 degrees.

4. C

Ineach series square, the white 5q,uare 10585 adot. The figure reflects across ineach rice; equaro i(the position of the whit'8 squam alternates between the right and the left of ths seritfJta square).

5. B

Ineach series square. th:eblack line gets longet: The number of triangles; at thetopalternates between o,neand three.

Sectio,n 4,- Complete the P'air

1. A

The figure reflects across and the shadings of the shapes swap ,over.

2. A

The*circle galn5 an extra'line.*

3. C

The figure reflects across and the ,ellipse at the bottom geto bfgae

4. B

The shape at the front moves to the back.

5. E

1he line5 below the shape move up into the 5hape. 1he figure then rotate5 ***45*** *degrees clockwi5e.*

Secti0_n 5 - Look at the Figure from the Right

1. C

1here 5hould be a grey cube at the back ofthe figure, on the bottom, which rule5 out options **A**, *Band D.*

2. D

1here 5hould be a white block two cube5 high on the left ofthe grey block, which rules out option5 A Band C.

3. C

1here shouldbe a white block three cubes long at the top ofthe figure, which rules out option **A**. *1here 5hould be a white cube at the front ofthe figure, on the bottom, which rules out options Band D.*

4. B

1here 5hould be a white block two cubes high on top ofa white cube at the front ofthe figure. This rule5 out options **A,** *Cand0.*

Section 6 – Find the Figure Like the First Two

1. D

Allfigures mu5t have one thickjagged line made up offour shorter lines inside an ellipse.

2. B

All figures must have three grey shape5 and one white shape.

3. C

In all figure5, there must be a white line at the front, goin(J diagonallydown to the right.

4. A

All figures must have a four-5ided shape at the top.

5. D

All figures must have three ring5. Two mu5t be the 5ame colour and one must be different. 1he greyrings must be in front ofthe black rings.

Quick Lesson Recap

1. Convert the following decimals into percentages

   a. 0.25

      25%

   b. 0.02

      2%

   c. 0.5

      50%

   d. 0.2

      20%

2. Convert the following percentages into fractions

   a. 30%

      3/10

   b. 45%

      9/20

   c. 70%

      7/10

   d. 80%

      2/5

3. Convert the following fractions into percentages

   a. $\frac{2}{5}$

      40%

   b. $\frac{6}{8}$

      75%

   c. $\frac{9}{15}$

60%

Quick Lesson Recap

1. What is 20% of 400?

80

2. What is 35% of 280?

98

3. What is 65% of 740?

481

4. Workout $\frac{3}{4}$ of 160

120

5. Workout $\frac{4}{9}$ of 90

40

6. Convert $\frac{11}{20}$ into a percentage

55%

7. What is the mean of 15, 7, 6 and 4

8

8. 24.5 ÷ 1000 =

0.0245

9. What is the LCM of 8 and 12 ?

4

10. $(2+4)^2 - 4 \times 3 \div 2$

42