Level 5 Practice Worksheet 3

ESTIMATION

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Question 1

Round each number in the calculations below to the nearest ten to estimate the value of the calculation:

Example: *56 × 76 estimate 60 × 80 = 4800*

a)	12 × 34	b)	16 × 44	c)	25 × 11	d)	19 × 35	e)	99 × 67
f)	33 × 61	g)	54 × 76	h)	101 × 88	i)	69 × 65	j)	43 × 89
k)	63 × 75	l)	81 × 56	m)	102 × 110	n)	9 × 282	o)	7 × 829

Question 2

Round each number in the calculations below to 1 significant figure to estimate the value of the calculation:

a)	671 + 382	b)	228 + 210	c)	2677 + 2001	d)	5.672 + 7.892
e)	781 – 399	f)	1003 – 267	g)	6728 – 2930	h)	5.29 – 2.36
i)	578 × 102	j)	269 × 555	k)	1029 × 3005	l)	5.607 × 8.091
m)	372 ÷ 9.7	n)	938 ÷ 12	o)	8292 ÷ 98	p)	9.2627 ÷ 0.9046

Question 3

For each of the calculations below, estimate the value and use this to pick the correct solution from the list given:

a)	576 + 289	A: 745	B: 865	C: 1015	D: 1675
b)	2728 + 2902	A: 4020	B: 4980	C: 5630	D: 7760
c)	3436 + 2555	A: 4211	B: 4451	C: 4891	D: 5991
d)	8930 + 9102	A: 18032	B: 19922	C: 20202	D: 21312
e)	892 – 455	A: 437	B: 597	C: 677	D: 707
f)	1672 – 245	A: 1427	B: 1597	C: 1627	D: 1777
g)	8056 – 1028	A: 5008	B: 6168	C: 7028	D: 8888
h)	17882 – 11025	A: 4047	B: 5537	C: 6117	D: 6857
i)	6.47 + 4.38	A: 8.85	B: 10.85	C: 12.85	D: 14.85
j)	17.29 + 82.04	A: 89.33	B: 99.33	C: 109.33	D: 119.33
k)	8.93 – 4.12	A: 4.81	B: 5.81	C: 6.81	D: 7.81
l)	37.28 – 19.73	A: 10.55	B: 13.55	C: 14.55	D: 17.55
m)	27 × 11	A: 277	B: 297	C: 317	D: 337
n)	39 × 19	A: 341	B: 541	C: 741	D: 941
o)	292 × 31	A: 9052	B: 10052	C: 11052	D: 12052
p)	687 × 104	A: 61448	B: 71448	C: 81448	D: 91448
q)	6.17 × 1.1	A: 0.787	B: 2.787	C: 4.787	D: 6.787

Question 4

For each of the receipts below, round each value to the nearest pound then add the values in order to find the total amount spent on the same shopping at different supermarkets:

Sainsco
1/5/07 17:34

Apples	£2.99
Grapefruit Juice	£1.79
Yoghurts	£3.10
Newspaper	£0.75
Toilet Roll	£4.19
Bread	£0.19
Milk	£1.44
Coffee	£2.78
Chocolate Bar	£0.48
TOTAL	**????**

LIDDA
2/3/08 13:25

Apples	£0.99
Grapefruit Juice	£1.59
Yoghurts	£2.00
Newspaper	£0.75
Toilet Roll	£3.89
Bread	£0.29
Milk	£1.59
Coffee	£2.09
Chocolate Bar	£0.56
TOTAL	**????**

Asbury's
16/11/07 11:09

Apples	£1.59
Grapefruit Juice	£2.50
Yoghurts	£2.80
Newspaper	£0.75
Toilet Roll	£2.25
Bread	£0.79
Milk	£1.88
Coffee	£3.49
Chocolate Bar	£0.33
TOTAL	**????**

Thank you for shopping at Asbury's – we hope you see you again soon!

TESROSE
17/12/08 09:59

Apples	£3.49
Grapefruit Juice	£0.99
Yoghurts	£2.21
Newspaper	£0.49
Toilet Roll	£2.55
Bread	£0.14
Milk	£1.78
Coffee	£3.58
Chocolate Bar	£0.29
TOTAL	**????**
BRANCH	**189**
MANAGER	**SCOTT L**

Question 5

For each of the receipts in question 4, measure the length and width of the receipt, giving your measurements in millimetres.
Round each measurement to the nearest ten and use the rounded values to estimate:

a) The perimeter of each receipt

b) The area of each receipt (give your answer in cm²)

Question 6

Assume that the receipts above are an average size for each supermarket. On average, Sainsco serves 6709 customers each day, Lidda serves 3389 each day, Asbury's serves 4078 each day and Tesrose serves 2102 each day. Round all values used to 1 significant figure to work out:

a) An estimate for the length of paper used by each store during a typical day (in metres)

b) An estimate for the area of paper used by each store during a typical day (in cm²)