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Name:	Date:	Pre GCSE Maths 2004/5 Homework 6. Decimals.

DO NOT use a calculator.

You must show any working. Use the back of any sheet if you need more room.

Curriculum links	Decimal place value	Marks
N2/L1.4 Read, write, order and compare decimals up to three decimal places (a) understand that the position of a digit signifies its value (b) know that the decimal point separates whole numbers from decimal fractions (c) know what each digit represents, including the use of zero as a place holder **N2/L2.5 Order, approximate and compare decimals when solving practical problems** (a) understand place value (whole nos. and up to 3 decimal places) (b) understand that decimals can be rounded to different degrees of accuracy, depending on purpose	▸▸ 1a. List these six numbers in descending order **1.3 1.03 1.033 3.01 1.33 0.003** ▸▸ 1b. List these six numbers in ascending order **5.64 6.45 5.06 6.07 5.1 6.007** 1a) _____ 1b) _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	1 1
	▸▸ 2a. Write this decimal in words: 9.081 ▸▸ 2b. Write this number as a decimal: One hundred and ninety thousand, four hundred and seven point three, zero, one.	½ ½
	▸▸ 3. Write the correct symbol (< or >) between the pairs of numbers. **11.096 11.209** **0.115 0.7** **4.09 4.021**	1 1 1
	▸▸ 4. What does the **7** represent in these numbers: **12.570** **2.7611**	1 1
	▸▸ 5a. What is the largest number you can make using all five digits and the decimal point. **2 2 5 9 3 •** ▸▸ 5b. What is the smallest number you can make using all five digits and the decimal point. **0 5 7 4 0 •**	1 1
Tutor's comments		10

Name:

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Curriculum link	Rounding, equivalencies, x and ÷ by 10, 100.	Marks
N2/L2.5 Order, approximate and compare decimals when solving practical problems (a) understand place value (whole nos. & up to 3 decimal places) (b) understand that decimals can be rounded to different degrees of accuracy, depending on purpose **N2/L1.6 Multiply and divide decimals by 10, 100** (a) understand place value (whole nos. and to two-decimal places) **N2/L1.7 approximate decimals by rounding to a whole number or two decimal places** (a) know what is meant by decimal places **N2/L1.3 Recognise equivalencies between common fractions, decimals and percentages and know how you use these to find part of whole number quantities.** (a) know common fraction equivalents e.g. quarters, fifths, tenths. **N2/L2.2 Identify equivalencies between fractions, decimals and percentages** (a) understand that fractions, decimals and %s are different ways of expressing the same thing (c) know that decimal fractions are expressed in tenths, hundredths, thousandths	⏩ 6. Round these decimals to the nearest whole number **5.49 14.098 31.75**	½ ½ ½
	⏩ 7. Round these numbers to one decimal place **5.49 14.098 31.44**	½ ½ ½
	⏩ 8. Round these numbers to two decimal places **5.491 14.098 31.452**	½ ½ ½
	⏩ 9. Change these decimals to fractions or mixed numbers and simplify if possible. **1.4 0.7 0.55 0.28 1.27**	1 ½ 1 1 1
	⏩ 10. Change these fractions to decimals **3/10 92/100 2/5 1/4**	½ ½ 1 1
	⏩ 11. Multiply these numbers by 10. **0.9 0.81 1.23 10.089**	½ ½ ½ ½
	⏩ 12. Divide these numbers by 100 **1.9 888.1 21.23 0.089**	½ ½ ½ ½
Tutor's comments		16

Name:

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Curriculum link	Add, subtract, multiply, divide decimals.	Marks
N2/L1.5 Add, subtract, multiply, divide decimals up to 2 places (a) know and use strategies to check answers e.g. approximate calculations using whole numbers **N2/L2.6 Add, subtract, multiply, divide decimals up to 3 places** (a) know and use strategies to check answers e.g. approximate calculations using whole numbers **N2/L2.5 Order, approximate and compare decimals when solving practical problems** (a) understand place value (whole nos. and up to 3 decimal places) (b) understand that decimals can be rounded to different degrees of accuracy, depending on purpose	⏩ 13a. Estimate an answer to 10.4 + 4.561 + 34.06 ⏩ 13b. Now work out the answer exactly.	½ 1
	⏩ 14a. £40.05 – £33.16 = ⏩ 14b. How could you check your answer?	1 ½
	⏩ 15. €345.63 – €79.81 =	1
	⏩ 16a. 78.9 x 16 = ⏩ 16b. How could you check your answer?	1 ½
	⏩ 17a. **Estimate** an answer to 5.6 x 1.7 = ⏩ 17b. Now work out the answer exactly	½ 1
	⏩ 18a. 42.189 ÷ 7 = ⏩ 18b. How could you check your answer?	1 ½
	⏩ 19a. Estimate an answer to 405 ÷ 0.9 = ⏩ 19b. Now work it out exactly	½ 1
Tutor's comments:	Total Score: 36	10

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ANSWER SHEET	Pre GCSE Maths 2004/5 Homework 6. Decimals.

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Curriculum links	Decimal place value	Marks
N2/L1.4 Read, write, order and compare decimals up to three decimal places (a) understand that the position of a digit signifies its value (b) know that the decimal point separates whole numbers from decimal fractions (c) know what each digit represents, including the use of zero as a place holder **N2/L2.5 Order, approximate and compare decimals when solving practical problems** (a) understand place value (whole nos. and up to 3 decimal places) (b) understand that decimals can be rounded to different degrees of accuracy, depending on purpose	▸▸ 1a. List these six numbers in descending order **1.3 1.03 1.033 3.01 1.33 0.003** ▸▸ 1b. List these six numbers in ascending order **5.64 6.45 5.06 6.07 5.1 6.007** 1a) 3.01, 1.33, 1.3, 1.033, 1.03, 0.003 1b) 5.06, 5.1, 5.64, 6.007, 6.07, 6.45	1 1
	▸▸ 2a. Write this decimal in words: 9.081 nine point zero (or nought) eight one ▸▸ 2b. Write this number as a decimal: One hundred and ninety thousand, four hundred and seven point three, zero, one. 190 407.301	½ ½
	▸▸ 3. Write the correct symbol (< or >) between the pairs of numbers. **11.096 < 11.209** **0.115 < 0.7** **4.09 > 4.021**	1 1 1
	▸▸ 4. What does the **7** represent in these numbers: **12.570** (seven) hundredths **2.7611** (seven) tenths	1 1
	▸▸ 5a. What is the largest number you can make using all five digits and the decimal point. **2 2 5 9 3 •** **9532.2** ▸▸ 5b. What is the smallest number you can make using all five digits and the decimal point. **0 5 7 4 0 •** **0.0457**	1 1
Tutor's comments		10

ANSWER SHEET

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Curriculum link	Rounding, equivalencies, x and ÷ by 10, 100.	Marks
N2/L2.5 Order, approximate and compare decimals when solving practical problems (a) understand place value (whole nos. & up to 3 decimal places) (b) understand that decimals can be rounded to different degrees of accuracy, depending on purpose **N2/L1.6 Multiply and divide decimals by 10, 100** (a) understand place value (whole nos. and to two-decimal places) **N2/L1.7 approximate decimals by rounding to a whole number or two decimal places** (a) know what is meant by decimal places **N2/L1.3 Recognise equivalencies between common fractions, decimals and percentages and know how you use these to find part of whole number quantities.** (a) know common fraction equivalents e.g. quarters, fifths, tenths. **N2/L2.2 Identify equivalencies between fractions, decimals and percentages** (a) understand that fractions, decimals and %s are different ways of expressing the same thing (c) know that decimal fractions are expressed in tenths, hundredths, thousandths	⏩ 6. Round these decimals to the nearest whole number **5.49 14.098 31.75** **5 14 32**	½ ½ ½
	⏩ 7. Round these numbers to one decimal place **5.49 14.098 31.44** **5.49 14.1 31.4**	½ ½ ½
	⏩ 8. Round these numbers to two decimal places **5.491 14.098 31.452** **5.49 14.10 31.45**	½ ½ ½
	⏩ 9. Change these decimals to fractions or mixed numbers and simplify if possible. **1.4 0.7 0.55 0.28 1.27** **1 2/5 7/10 11/20 7/25 1 27/100**	1 ½ 1 1 1
	⏩ 10. Change these fractions to decimals **3/10 92/100 2/5 ¼** **0.3 0.92 0.4 0.25**	½ ½ 1 1
	⏩ 11. Multiply these numbers by 10. **0.9 0.81 1.23 10.089** **9 8.1 12.3 100.89**	½ ½ ½ ½
	⏩ 12. Divide these numbers by 100 **1.9 888.1 21.23 0.089** **0.019 8.881 0.2123 0.00089**	½ ½ ½ ½
Tutor's comments		16

ANSWER SHEET

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Curriculum link	**Add, subtract, multiply, divide decimals.**	**Marks**
N2/L1.5 Add, subtract, multiply, divide decimals up to 2 places (a) know and use strategies to check answers e.g. approximate calculations using whole numbers **N2/L2.6 Add, subtract, multiply, divide decimals up to 3 places** (a) know and use strategies to check answers e.g. approximate calculations using whole numbers **N2/L2.5 Order, approximate and compare decimals when solving practical problems** (a) understand place value (whole nos. and up to 3 decimal places) (b) understand that decimals can be rounded to different degrees of accuracy, depending on purpose	⏩ 13a. Estimate an answer to 10.4 + 4.561 + 34.06 For example: 10 + 5 + 34 = 49 ⏩ 13b. Now work out the answer exactly. 49.021 (column addition)	½ 1
	⏩ 14a. £40.05 – £33.16 = £6.89 (long subtraction or mentally) ⏩ 14b. How could you check your answer? £6.89 + £33.16 = £40.05 (inverse operation)	1 ½
	⏩ 15. €345.63 – €79.81 = €265.82 (long subtraction)	1
	⏩ 16a. 78.9 x 16 = 1262.4 (any efficient written method - long multiplication, grid method, lattice method, etc.) ⏩ 16b. How could you check your answer? 1269.4 ÷ 16 = 78.9 (inverse operation)	1 ½
	⏩ 17a. **Estimate** an answer to 5.6 x 1.7 = For example 6 X 2 = 12 ⏩ 17b. Now work out the answer exactly 9.52 (any efficient written method - long multiplication, grid method, lattice method, etc.)	½ 1
	⏩ 18a. 42.189 ÷ 7 = 6.027 (long or short division) ⏩ 18b. How could you check your answer? 6.027 x 7 = 42.189	1 ½
	⏩ 19a. Estimate an answer to 405 ÷ 0.9 = For example 400 ÷ 1 = 400 ⏩ 19b. Now work it out exactly 450 (short division)	½ 1
Tutor's comments:	Total Score ____ 36	____ 10