

**Year 7 Mathematics 2015**

**Common Test 3: Angles and Decimals Time allowed: 60 mins**

**Total marks: 63** **Name**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Show your working for any question worth more than one mark.

1. **Measure** the following two angles. [2]

1. **(b)**

*Answer (a)* $68˚-70˚$ *Answer (b)* $150˚-152˚$

1. What **type** of angle is *angle (b)*? Obtuse [1]

☺

1. **Name** the angle marked with a , using 3-point notation.

*B*

*A*

*C*

*D*

☺

 $<BDC, <CDB$ [2]

1. Draw the angle CDE which is 113˚ and label it using the correct three letters. [2]

*E*

*D*

*C*

*C*

*D*

*E*

1. State whether the following statements are “True” or “False”
2. $∠MNP$ is the same as $∠PNM.$ TRUE [1]
3. An obtuse angle must be greater than 90˚ and less than 180˚. TRUE [1]
4. A reflex angle must be greater than 270˚ and less than 360˚. FALSE [1]
5. Calculate the following:
6. The supplement of 63˚ 117˚ [1]
7. The complement of 88˚ $2˚$ [1]
8. The supplement of 134˚ $46˚$ [1]
9. Using the diagram below answer the following questions.

*A*

*B*

*C*

*D*

*E*

*F*

1. Name a pair of **adjacent** angles. $<ACF and<FCD$

 $OR <ABE and <EBD$ [1]

1. If angle BCF is 43˚ what is the value of angle FCD? $137˚$ [1]
2. \What **type** of angle is ABE? Acute [1]
3. Using the diagram below name the following



\*

1. A ray. $\vec{FD}, \vec{BX}, \vec{BA} etc $ [1]
2. A line. $\overleftrightarrow{AE}, \overleftrightarrow{CD}$ [1]
3. The intersection of $\overleftrightarrow{CD}$ and $\overleftrightarrow{AE}$ $F$ [1]
4. The angle marked \* using three-point notation. $<DFE or <EFD$ [1]
5. Use the number 0.5408 to answer the following questions.
6. What is the **place value** of the 4? hundredths, 100ths [1]
7. What is the **value** of the 8? $\frac{8}{10000} or 0.0008$ [1]
8. Write it in **expanded** form.

$5×\frac{1}{10}+4×\frac{1}{100}+8×\frac{1}{10000}$ [1]

1. Round to two decimal places. $0.54$ [1]
2. Write your answer from **(d)** in words.

Fifty-four hundredths, OR zero point five four [1]

1. Write the original number as a fraction (you do not need to simplify) $\frac{5408}{10000}$ [1]
2. Write a number which is **two tenths** larger than the original number. $0.7408$ [1]
3. **Circle** the correct answer for the following:
	1. Seven units, three hundredths and eight thousandths is: [1]

**A** $7.308$ **B** $0.7038$ **C** $7.038$ **D** $7.0308$

* 1. Which of the following statements is **incorrect**? [1]

**A** $1.909<1.99$ **B** $0.07>0.069$ **C** $16.859<16.86$ **D** $24.923>24.93$

* 1. $10.1×0.006=$ [1]

**A** $60.6$ **B** $0.0606$ **C** $6.06$ **D** $0.606$

* 1. $5.5807$ expressed as a mixed numeral is: [1]

**A** $5\frac{587}{1000}$ **B** $5\frac{58}{7}$ **C** $5\frac{587}{100}$ **D** $5\frac{5807}{10000}$

1. Complete the following table to show the equivalent decimal or fraction. [4]

|  |  |
| --- | --- |
| **Decimal** | **Fraction** |
| (a) $0.42$ | $$\frac{42}{100}$$ |
| 0.32 | (b) $\frac{32}{100}$ |
| (c) $0.3$ | $$\frac{3}{10}$$ |
| 5.38 | (d) $5\frac{38}{100}$ |

1. Calculate the following, you must show working to gain full marks.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **(a)** | $9.08+12.16$  | [2] | **(b)** | $150.86-9.1$  | [2] |
| **(c)** | $0.395×8$  | [2] | **(d)** | $9.237÷3$  | [2] |

1. State whether the following decimals are **terminating** or **recurring.**
2. $0.888$ Terminating [1]
3. $0.\overbar{98}$ Recurring [1]
4. $0.\dot{3}$ Recurring [1]
5. Re-write the following decimals using the correct notation.
6. $0.18888…$ $0.\dot{18}$ [1]
7. $0.504504…$ $0.\overbar{504}$ [1]
8. Write the following fractions as decimals.
9. $\frac{9}{11}$ $0.\overbar{81}$ [1]
10. $8\frac{5}{6}$ $8.8\dot{3}$ [1]
11. Complete the following table by rounding each decimal. [6]

|  |  |  |
| --- | --- | --- |
| **Decimal** | **Nearest Whole Number** | **Two Decimal Places** |
| $$27.862$$ | (a) $28$ | (b) $27.86$ |
| $$356.508$$ | (c) $357$ | (d) $356.51$ |
| $$1.299$$ | (e) $1$ | (f) $1.30$ |

1. Weymond has covered 3.86 km of a 14.5 km journey. How far does he have to go?

$$14.5-3.86$$

 $10.64 km$ [2]

1. Malcolm had $540.30 in his bank account. He withdrew $127.50 to buy a new suit jacket and then banked a $86.45 tax refund. What is the new balance in his account?

$$540.30-127.50+86.45$$

 $\$499.25$ [2]

1. Nadia buys a 10 kg bag of potting mix. She uses 0.4 kg on each of 3 garden pots and 2.75 kg on each of her two vegetable patches. She divides the rest of the potting mix equally on her flower gardens. If each flower garden gets 1.1 kg of potting mix, how many flower gardens does Nadia have?

$$10-3×0.4-2.75×2=3.3 kg$$

$$3.3 kg÷1.1=3$$

 $3 gardens$ [3]

THE END

Please check your work carefully, ensuring you have shown working for all questions worth more than one mark.