

Name _____

Date _____

Stage 7 End-of-unit test 1

25 questions · 37 marks · calculators are not allowed · allow about 45 minutes

- 1 Work out $8 + (-12)$. [1]

- 2 Work out $-6 - (-9)$. [1]

- 3 Fill in the missing integer: $__ \times 5 = -15$ [1]

- 4 Fill in the missing integer: $__ \div 4 = -8$ [1]

- 5 Find the lowest common multiple of 6 and 10. [2]

- 6 Find the highest common factor of 24 and 40. [2]

- 7 Work out $\sqrt[3]{125} - \sqrt[3]{27}$. [1]

- 8 The cube root of a number is 4. Work out the square root of the number. [2]

- 9 The highest common factor of two numbers is 3 and their lowest common multiple is 18. What is the larger of the two numbers? [1]

- 10 The highest common factor of two numbers is 3 and their lowest common multiple is 18. What is the smaller of the two numbers? [1]

- 11 The number $3\blacksquare58$ has a digit replaced by $\blacksquare$. The number is divisible by 3. List all the possible values of $\blacksquare$, separated by commas. [2]

- 12 The product of two integers is -24 and their sum is 5. What is the larger integer? [1]

- 13 The product of two integers is -24 and their sum is 5. What is the smaller integer? [1]

- 14 A whole number is greater than 22 222 and is also divisible by 9. Find the smallest whole number with this property. [1]

- 15** Look at this pattern: $2^2 = 4$, $4^2 = 16$, $8^2 = 64$, $16^2 = 256$. Use the pattern to find 32^2 . [2]
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- 16** The temperature at 05:00 is -9°C . By 13:00 it has risen 14°C . What is the temperature at 13:00, in $^\circ\text{C}$? [1]
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- 17** A diver descends at 7 m per minute from the surface. What is her depth after 9 minutes? Give a negative number of metres. [1]
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- 18** Two lights flash every 12 seconds and every 16 seconds. They flash together now. After how many seconds do they next flash together? [2]
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- 19** A shopkeeper has 90 apples and 126 pears. She makes identical baskets using all the fruit. What is the greatest number of baskets? [2]
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- 20** Work out $(-2)^3 \times (-5)$. [2]
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- 21** $\sqrt{90}$ lies between which two whole numbers? [1]
- ☐ 8 and 9
 - ☐ 9 and 10
 - ☐ 10 and 11
 - ☐ 11 and 12
- 22** Is 5 148 divisible by 11? [2]
- ☐ Yes
 - ☐ No
- 23** Find the smallest 3-digit number that is divisible by both 6 and 8. [2]
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- 24** A square field has an area of 196 m^2 . What is the length of its perimeter, in metres? [2]
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- 25** Work out $\sqrt{169} + (-4)^2 - \sqrt[3]{216}$. [2]
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END OF TEST