Number Properties: Medium Practice Paper 3 Answers

Q#	Answer	Explanation
1	C	The factors of 16 are 1, 2, 4, 8, 16 and the factors of 24 are 1, 2, 3, 4, 6, 8, 12, 24. The largest number in both lists is 8.
2	C	Multiples of 6: 6, 12, 18, 24, 30. Multiples of 10: 10, 20, 30. The smallest number in both lists is 30.
3	C	The factors of 40 are 1, 2, 4, 5, 8, 10, 20 and 40. Counting them gives 8 factors.
4	C	The primes between 10 and 20 are 11, 13, 17 and 19, which is 4 numbers. 15 divides by 5 and all the even numbers divide by 2.
5	C	Squaring means multiplying a number by itself: 13 × 13 = 169.
6	C	The square root asks which number multiplied by itself gives 196. Since 14 × 14 = 196, the square root is 14.
7	D	168 ÷ 8 = 21 exactly. The others all leave a remainder when divided by 8.
8	C	This is the lowest common multiple of 4 and 5. Multiples of 4: 4, 8, 12, 16, 20. Multiples of 5: 5, 10, 15, 20. They meet after 20 minutes.
9	D	The piece length must divide both 24 and 36, so it is their highest common factor. That is 12 cm, giving 2 pieces and 3 pieces.
10	D	From −7°C up to 0°C is 7 degrees, and from 0°C up to 4°C is another 4 degrees. Altogether that is 7 + 4 = 11 degrees.
11	D	56 ÷ 7 = 8 and 56 ÷ 4 = 14, so it is a multiple of both. 42 and 63 are multiples of 7 only, and 48 is a multiple of 4 only.
12	D	Cubing means multiplying a number by itself three times: 6 × 6 × 6 = 36 × 6 = 216.
13	C	The multiples of 5 up to 30 are 5, 10, 15, 20, 25 and 30, which is 6 cards. You can also work it out as 30 ÷ 5 = 6.

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14	D	The factors of 12 are 1, 2, 3, 4, 6 and 12. Adding them: 1 + 2 + 3 + 4 + 6 + 12 = 28.
15	E	42 ÷ 14 = 3 and 56 ÷ 14 = 4, so 14 divides into both. 3 and 6 divide 42 only, and 4 and 8 divide 56 only.

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