Rosary School \ Marj Elhamam

Name :_____ Date : / 10 / 2025

Subject: Practice worksheet(3) /unit (2) Grade : 6 ( )

2.1 Rules of Divisibility

Q1: Answer the Following questions and explain your answer.

a. Is 248 divisible by 2? _____

b. Is 515 divisible by 5? _____

c. Is 395 divisible by 3? _____

d. Is 811 divisible by 4? _____

e. Is 666 divisible by 9? _____

f. Is 902 divisible by 10? _____

g. Is 72 divisible by 2 and 3? _____

Q2: Write a number divisible by 3, 4 and 5. _____

Q3: Draw a ring around the numbers that are divisible by 9?

63 72 95 108 123

Q4: A box of 185 oranges must be shared equally among 10 students.

Can it be divided evenly?

Q5: A company prints 2,160 flyers. Can they pack them into boxes of 8 without leftovers?

_____

_____

2.2 Factors, Multiples, and Primes

Q1: List all factors of 24. _____

Q2: List all factors of 42. _____

Q3: List the first 5 multiples of 8. _____

Q4: Write all prime numbers between 20 and 50. _____

Q5: Is 91 a prime number? Explain why.

_____

Q6: Work out the **HCF** of 18 and 24.

Q7: Work out the **LCM** of 6 and 9.

Q8: Work out the **HCF** and **LCM** of 10 and 25.

Q9: Leen has 15 red balloons and 25 blue balloons. She wants to pack them equally. What is the

greatest number of packs she can make?

Q10: A bus stops every 12 minutes and a train every 18 minutes. After how many minutes will be the first meeting at the station?

2.3 Positive and Negative Numbers

Q1: Arrange the following numbers in ascending order:

-8 3 -6 0 9 -1

_____, _____, _____, _____, _____, _____

Smallest

Q2: Work out.

a. 8 + –10 = _____

b. –14 – –6 = _____

c. –9 + 11 = _____

d. –6 – 7 = _____

e. 5 – –3 = _____

f. + 2× + 4 = _____

g. – 6 × + 3 = _____

h. + 8 × - 2 = _____

I. – 7× - 5 = _____

J. – 10 × +6 = _____

Q3: Compare: –5 ☐ -2

Q4: Draw a ring around the smallest number:

–2 –8 –12 3 0

Q5: A submarine is 90 m below sea level. It rises by 40 m. What is its new depth?

Q6: The temperature was –6°C and rose by 10°C. What is the new temperature?

Q7: An elevator starts at floor 0, goes down 5 floors, then up 8 floors. What floor is it on?

Q8: A freezer temperature is –15°C. If it increases by 9°C, what is the new temperature?

2.4 Squares and Square Roots

Q1: Work out.

a. 6^2 = _____ b. 0.7^2 = _____

c. $\sqrt[2]{81}$ = _____ d. $\sqrt[2]{64}$ = _____

e. $\sqrt[2]{100} \times \sqrt[2]{25}$ = _____ f. $\sqrt[2]{144}$ = _____

Q2: A square garden has a side length of 15 m. Find its area.

Q3: The area of a square is 49 cm^2. Find the length of one side.

Q4: Estimate: a. $\sqrt[2]{6} \approx$ b. $\sqrt[2]{80} \approx$

2.5 More Powers and Roots.

Work out.

a. $8^2 + 0.3^2$ = _____

b. $10^2 – 6^2$ = _____

c. $(5 + 2)^2$ = _____

d. $\sqrt[3]{64}$ =_____

e.$\sqrt[3]{-27}$ = _____

f. $5 \times \sqrt[3]{125}$ -15= _____

g. $4 \times \sqrt[3]{8}$ = _____

h.$\frac{\sqrt[2]{81}}{3}$ - 4 = _____

j. 7×2^3 =_____

I. $\sqrt[3]{216}$ =_____

k. $3^3 + 5^3$ =_____

2.6 calculations.

Q1: Write these calculations in ascending order:

$\sqrt{16} + 3$, $\sqrt{25} - \sqrt[3]{8}$, $\sqrt[3]{27} - 3$.

_____, _____, _____

Smallest

Q2: Write these calculations in descending order:

$\sqrt{64} - \sqrt[3]{27}$, $\sqrt{49} + 1$, $\sqrt{36} - 3$.

_____, _____, _____

Largest

Q3: Work out.

a. $4\,(8 - 2)$ = _____

b. $(10 - 5)^2$ = _____

c. $(2 + 3 \times 2)^2$ =_____

d. $(15 \div 3 + 6)^2$ =_____

e. $(-2)^3$ = _____

f. $\sqrt{49} + 3 \times 5$= _____

h. $\sqrt{90 + 2 \times 5}$ =_____

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