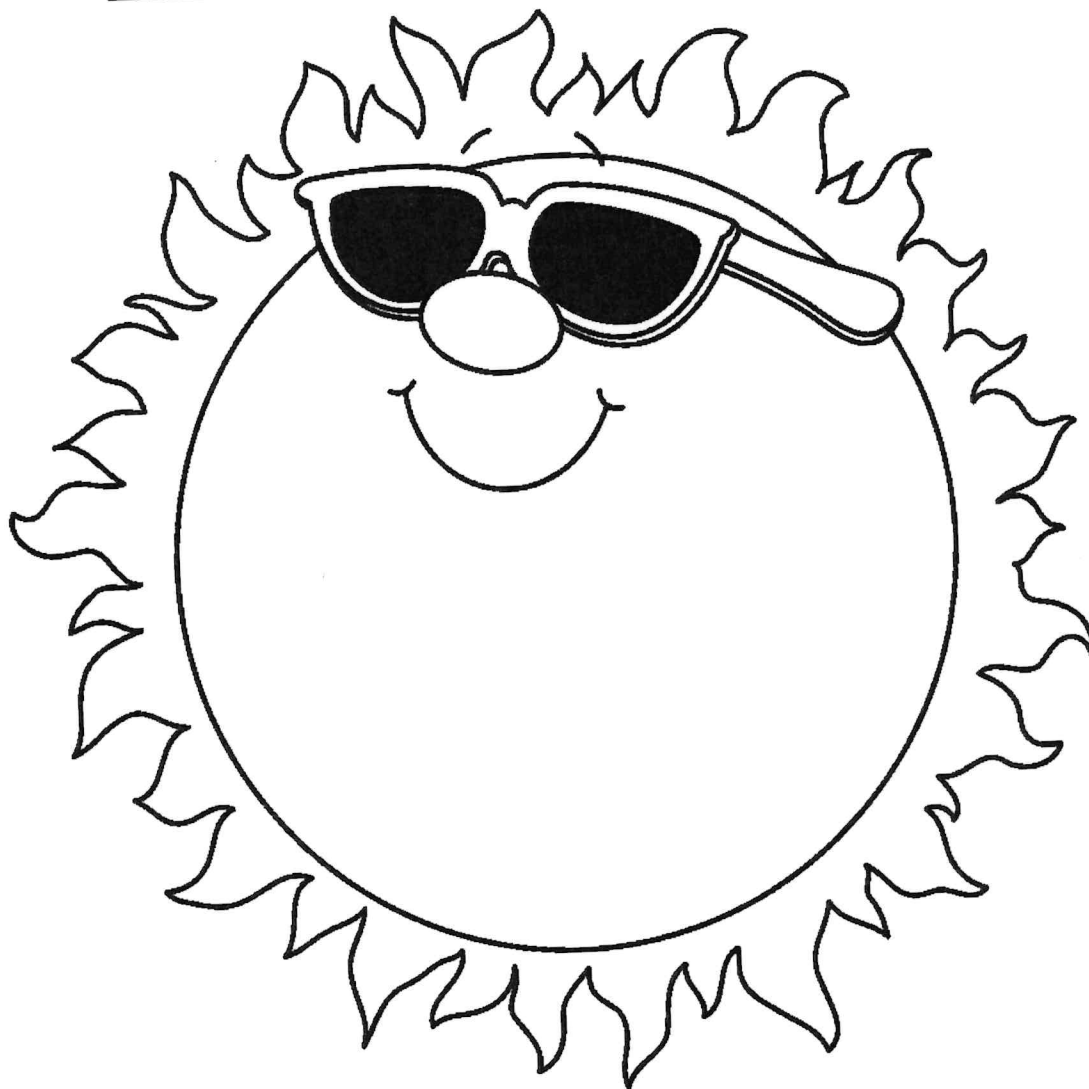


DCES Summer Math for students entering 8th Grade

Name: _____



School's out for summer but don't let those math skills slide! Your teachers have carefully chosen a collection of practice activities that cover a range of content that you have learned this school year. There are 16 pages in all, so 1-2 pages per week throughout the summer will have you all set for next school year; spread it out for best results. Remember, you still have access to digital resources like Freckle, IXL, etc. until the end of July, but if you need more support, ask your parents to sit with you or do an internet search for an instructional video that covers the topic. You will turn in your math packet for practice points to your math teacher in August. We hope you have a safe, blessed and MATH-TASTIC summer break!

REVIEW OF OPERATIONS OF FRACTIONS

** No Calculator!*

Reduce to lowest terms.

1. $\frac{3}{12}$

2. $\frac{6}{18}$

3. $\frac{8}{10}$

4. $\frac{14}{21}$

5. $\frac{9}{15}$

6. $\frac{8}{14}$

7. $\frac{20}{25}$

8. $\frac{10}{12}$

9. $\frac{8}{20}$

10. $\frac{12}{16}$

11. $\frac{20}{45}$

12. $\frac{6}{16}$

Change each improper fraction to a mixed number or whole number.

13. $\frac{13}{2}$

14. $\frac{11}{4}$

15. $\frac{18}{3}$

16. $\frac{7}{4}$

17. $\frac{40}{8}$

18. $\frac{10}{7}$

19. $\frac{16}{3}$

20. $\frac{22}{9}$

21. $\frac{35}{7}$

22. $\frac{19}{5}$

23. $\frac{11}{3}$

24. $\frac{30}{10}$

Change to an improper fraction.

25. $3\frac{1}{7}$

26. $5\frac{2}{3}$

27. $7\frac{3}{5}$

28. $4\frac{3}{7}$

29. $2\frac{3}{4}$

30. $7\frac{1}{8}$

31. $6\frac{1}{5}$

32. $1\frac{4}{7}$

33. $4\frac{2}{3}$

34. $7\frac{4}{5}$

35. $6\frac{1}{2}$

36. $7\frac{4}{9}$

Compute. Answer should be in lowest terms.

37.
$$\begin{array}{r} 5\frac{3}{8} \\ + 4\frac{1}{8} \\ \hline \end{array}$$

38.
$$\begin{array}{r} 8\frac{2}{5} \\ + 9\frac{3}{10} \\ \hline \end{array}$$

39.
$$\begin{array}{r} 8\frac{3}{4} \\ + 5\frac{1}{2} \\ \hline \end{array}$$

40.
$$\begin{array}{r} 3\frac{2}{3} \\ + 4\frac{1}{2} \\ \hline \end{array}$$

41.
$$\begin{array}{r} 6\frac{5}{6} \\ + 2\frac{3}{4} \\ \hline \end{array}$$

42.
$$\begin{array}{r} 7\frac{1}{8} \\ + 5\frac{7}{8} \\ \hline \end{array}$$

43.
$$\begin{array}{r} 8\frac{4}{5} \\ - 3\frac{2}{5} \\ \hline \end{array}$$

44.
$$\begin{array}{r} 9 \\ - 4\frac{1}{4} \\ \hline \end{array}$$

45.
$$\begin{array}{r} 6\frac{7}{9} \\ - 3\frac{2}{3} \\ \hline \end{array}$$

46.
$$\begin{array}{r} 5\frac{1}{4} \\ - 3\frac{1}{2} \\ \hline \end{array}$$

47.
$$\begin{array}{r} 8\frac{2}{7} \\ - 4\frac{3}{4} \\ \hline \end{array}$$

48.
$$\begin{array}{r} 7\frac{1}{8} \\ - 4\frac{5}{6} \\ \hline \end{array}$$

$$49. \frac{4}{5} \times 80$$

$$50. \frac{1}{4} \times 60$$

$$51. \frac{2}{3} \times \frac{5}{9}$$

$$52. \frac{3}{4} \times 6 \frac{1}{2}$$

$$53. 7 \frac{1}{2} \times 3 \frac{2}{3}$$

$$54. 8 \times 7 \frac{1}{4}$$

$$55. 32 \div 2 \frac{2}{3}$$

$$56. 3 \frac{1}{2} \div 4$$

$$57. 3 \frac{2}{3} \div 1 \frac{2}{7}$$

$$58. 16 \div 2 \frac{2}{3}$$

$$59. 8 \frac{1}{3} \div \frac{1}{2}$$

$$60. 40 \div 4 \frac{4}{5}$$

Search: Operations with decimals

Name _____ Period _____ Date _____

Operations with Decimals Review Worksheet

** No Calculator!*

Find each sum or difference.

1. $36.12 + 5.793$

2. $8.9 + 2.14 + 7.1$

3. $3.6 + 5.27 + 8.93$

4. $42.75 - 26.36$

5. $53.86 - 16.47$

6. $56.89 - 48.91$

7. $5.002 - 4.3$

8. $15.26 + 13.29 + 38.96$

9. $46.21 + 53.942$

Find each product or quotient.

10. $0.91 \cdot 2.7$

11. $4.6(3.9)$

12. 17.3×15.23

13. $2.1 \overline{)12.6}$

14. $36.78 \div 2.4$

15. $\frac{58.5}{10.4}$

Search: "decimal to percent" or "fraction to percent"

Name _____ Date _____ Class _____

LESSON 6-2 Practice C
Fractions, Decimals, and Percents

Write each decimal as a percent.

- | | | | |
|-------------------|-------------------|-------------------|-------------------|
| 1. 0.04
_____ | 2. 0.975
_____ | 3. 0.031
_____ | 4. 0.409
_____ |
| 5. 0.378
_____ | 6. 0.4
_____ | 7. 0.524
_____ | 8. 0.067
_____ |

Write each fraction as a percent.

- | | | | |
|------------------------------|-----------------------------|------------------------------|-----------------------------|
| 9. $\frac{13}{80}$
_____ | 10. $\frac{7}{9}$
_____ | 11. $\frac{17}{20}$
_____ | 12. $\frac{5}{8}$
_____ |
| 13. $\frac{39}{40}$
_____ | 14. $\frac{4}{11}$
_____ | 15. $\frac{11}{25}$
_____ | 16. $\frac{9}{50}$
_____ |

Compare. Write $<$, $>$, or $=$.

- | | | |
|---|---|--|
| 17. 30% ☐ $\frac{1}{3}$
_____ | 18. $\frac{3}{5}$ ☐ 60%
_____ | 19. $\frac{7}{16}$ ☐ 44%
_____ |
| 20. 0.065 ☐ 65%
_____ | 21. 0.507 ☐ 50%
_____ | 22. $\frac{7}{40}$ ☐ 20%
_____ |

Decide whether pencil and paper, mental math, or a calculator is most useful when solving the following problem. Then solve.

23. In a survey, 80 students were asked to name their favorite subject. Thirty students said that English was their favorite. What percent of the students surveyed said that English was their favorite subject?
- _____
- _____

Search: "order of operations" or "substitute and evaluate"

Homework: Order of Operations

Use "pemdas" to help simplify each expression. Check your work on a calculator and record keystrokes if your answers do not match each other. *Show work!*

1. $8 + 7 \cdot 9$

11. $12 + 4^2$

2. $35 - (17 - 2) \div 5$

12. $24 - 9 \cdot 2 + 6 \div 3$

3. $\frac{90 - 22}{28 - 11}$

13. $\frac{45}{9} + 3$

4. $12(2 + 7) - 24 \div 12$

14. $4(9 - 3) \div (8 - 2)$

5. $26 - [(25 - 11) - 2^3]$

15. $(8^2 - 2^5) \div (24 \div 6) + 3^2$

6. $\frac{12(30 - 12)}{3^2}$

16. $\frac{5(16 - 5) - 1}{4^2 - 7}$

Substitute and evaluate: $x = 8$, $y = 6$, $m = 3$, $p = \frac{1}{2}$, $n = \frac{3}{4}$

7. $4x - 2m$

17. $5y + 8p$

8. $nxy \div m$

18. $2(3x + 6) \div (10m)$

9. $2ny + x$

19. $(x + y) \div p$

10. $6p + 8n$

20. $my - 2x$

Tell what point is located at each ordered pair.

1. $(3, -2)$ _____ 2. $(2, 3)$ _____ 3. $(-5, 5)$ _____

4. $(-7, -8)$ _____ 5. $(-4, 4)$ _____ 6. $(-5, 0)$ _____

Write the ordered pair for each given point.

7. E _____ 8. M _____ 9. P _____

10. G _____ 11. Q _____ 12. N _____

Plot the following points on the coordinate grid.

13. S $(-6, -3)$ 14. T $(2, -4)$ 15. U $(5, 8)$

Identify the quadrant containing each point.

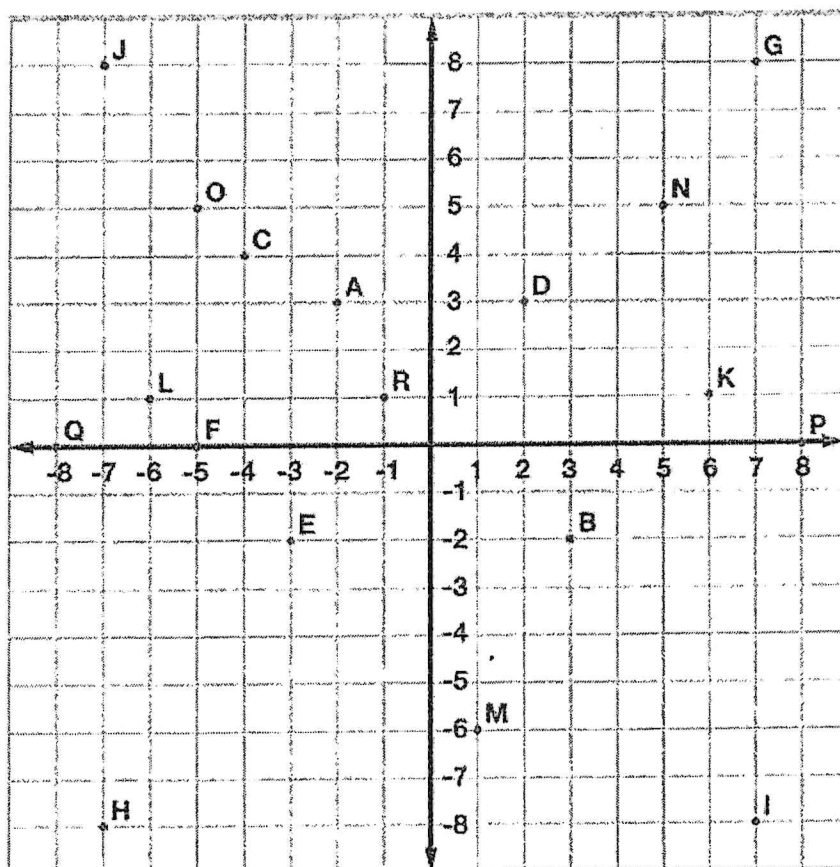
16. B

17. J

18. I

19. D

20. E



L5

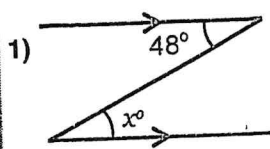
Progression: Light

Angles on Parallel Lines (A)

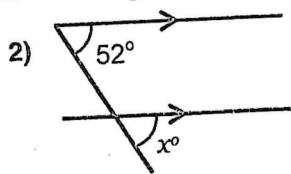


NOT TO SCALE

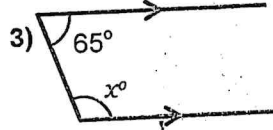
★ For reason, state what type of angle pair they are.
Section A: State the missing angle and give a reason for your answer..



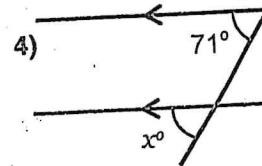
Angle x: _____
Reason: _____



Angle x: _____
Reason: _____

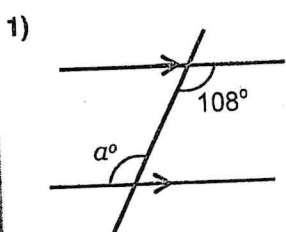


Angle x: _____
Reason: _____

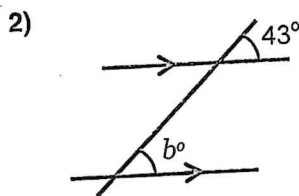


Angle x: _____
Reason: _____

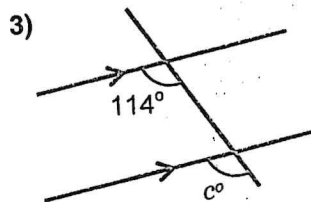
Section B: Calculate the missing angle and give a reason for your answer..



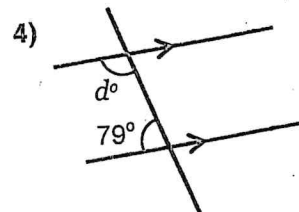
Angle a: _____
Reason: _____



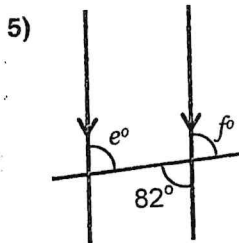
Angle b: _____
Reason: _____



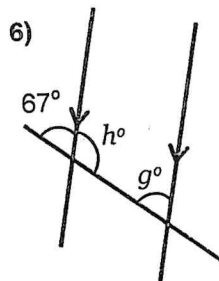
Angle c: _____
Reason: _____



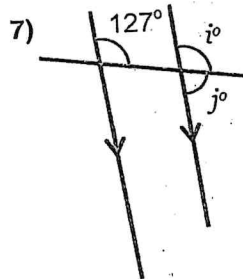
Angle d: _____
Reason: _____



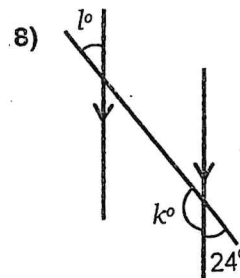
Angle e: _____
Reason: _____
Angle f: _____
Reason: _____



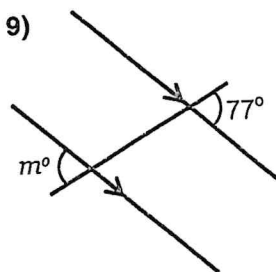
Angle g: _____
Reason: _____
Angle h: _____
Reason: _____



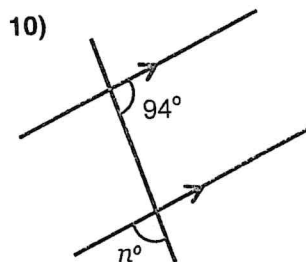
Angle i: _____
Reason: _____
Angle j: _____
Reason: _____



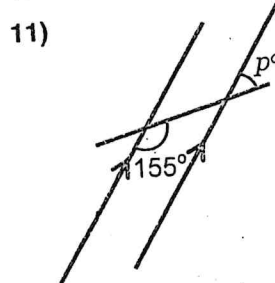
Angle k: _____
Reason: _____
Angle l: _____
Reason: _____



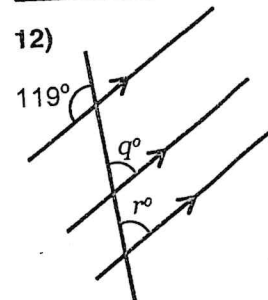
Angle m: _____
Reason: _____



Angle n: _____
Reason: _____



Angle p: _____
Reason: _____



Angle q & r: _____
Reason: _____

Search : Solving one step equations

Name _____ Period _____ Date _____

Solving One-Step Equations 1

You must show your work to get credit!! Check your answer.

Adding and Subtracting

1) $y + 6 = 20$

$-6 \quad -6$

$y = 14$

2) $x - 10 = 12$

3) $12 + z = 15$

4) $2 + n = 16$

5) $a + 4 = 14$

6) $m - 5 = -10$

7) $4 + b = 30$

8) $10 + c = 25$

9) $x - 60 = 20$

10) $g - 16 = 4$

11) $x - 15 = -20$

12) $w + 14 = 10$

13) $r - 18 = 27$

14) $13 + k = 25$

15) $f - 16 = 34$

16) $j + 17 = 19$

17) $r - 16 = 5$

18) $9 + t = 56$

Multiplying and Dividing

19) $2x = 16$

20) $15 = 3t$

21) $\frac{k}{2} = 6$

22) $3h = 27$

23) $\frac{j}{3} = 4$

24) $6p = 30$

25) $\frac{n}{10} = 40$

26) $\frac{h}{4} = 15$

27) $9s = 81$

28) $14 = 2c$

29) $26 = 13d$

30) $6 = \frac{m}{3}$

31) $7 = \frac{p}{5}$

32) $4w = 16$

33) $\frac{f}{3} = 9$

34) $20 = 4x$

35) $3z = 36$

36) $10 = \frac{j}{6}$

Search: Solving two step equations

Name _____ Period _____ Date _____

Solving Two-Step Equations 1

You must show your work to get credit!! Check your answer.

1) $3y + 6 = 12$

2) $10 + 3v = 25$

3) $2x + 8 = 16$

4) $\frac{k}{2} + 4 = 6$

5) $3h - 5 = 22$

6) $\frac{j}{3} + 5 = 9$

7) $6p - 10 = 26$

8) $\frac{n}{10} - 20 = 0$

9) $\frac{h}{4} + 1 = 9$

10) $9s - 40 = 41$

11) $14 = 2c + 8$

12) $8 = 5d - 12$

13) $6 = \frac{m}{3} - 9$

14) $4w - 6 = 10$

15) $\frac{f}{3} + 2 = 11$

Search: "Computation of integers"

Integer Operations Review

Name: _____

Do NOT use a calculator!

Adding Integers

1) $85 + (-96) =$ _____

2) $80 + 57 =$ _____

3) $86 + (-38) =$ _____

4) $22 + (-41) =$ _____

5) $-18 + (-45) =$ _____

6) $-32 + 48 =$ _____

7) $6 + (-33) =$ _____

8) $6 + (-47) =$ _____

9) $(-78) + 69 =$ _____

10) $-72 + (-30) + 10 =$ _____

11) $-83 + (-36) + 20 =$ _____

Subtracting Integers

1) $1 - 3 =$ _____

2) $2 - (-5) =$ _____

3) $6 - (-9) =$ _____

4) $-7 - (-1) =$ _____

5) $-7 - 4 =$ _____

6) $3 - (-2) =$ _____

7) $-1 - 9 =$ _____

8) $2 - 9 =$ _____

9) $-8 - (-1) =$ _____

Multiplying Integers

1) $(-4)(-12) =$ _____

2) $-8 \times (-8) =$ _____

3) $(-8)(-10) =$ _____

4) $5 \times 1 =$ _____

5) $(-10)(11) =$ _____

6) $(-3)(-8) =$ _____

7) $-2 \times 6 =$ _____

8) $7(-12) =$ _____

9) $4 \times (-10) =$ _____

10) $(-9)(-6)(2) =$ _____

11) $(-10)(-7)(-4) =$ _____

Dividing Integers

1) $-48 \div 6 =$ _____

2) $-81 \div (-9) =$ _____

3) $-18 \div (-6) =$ _____

4) $25 \div (-5) =$ _____

5) $-10 \div 2 =$ _____

6) $-35 \div (-5) =$ _____

7) $-42 \div 6 =$ _____

8) $-70 \div (-7) =$ _____

9) $-16 \div (-8) =$ _____

Search : ratios

RATIOS

Write the following ratios and reduce to lowest terms. Do not write answers as mixed numbers.

1. Mr. Reeves planted 5 bean plants and 12 tomato plants in his garden. What is the ratio of bean plants to tomato plants?
2. In a recent year in Tennessee, there were 53 telephones for every 100 people. What was the ratio of phones to people?
3. In one season, a basketball team won 60 games and lost 20 games. What is the ratio of games won to games lost?
4. A mallard duck has 13 ducklings. Five of the ducklings are male. What is the ratio of male to female ducklings?
5. In a recent year in Illinois, there were 166 telephones for every 100 people. What is the ratio of phones to people?
6. Bebe paid \$8.00 for 20 pounds of oranges. What is the ratio of the price of oranges to the pound of oranges?

Search : solving a proportion

PROPORTIONS

Solve each proportion.

1. $\frac{28}{n} = \frac{7}{9}$

2. $\frac{m}{36} = \frac{5}{9}$

3. $\frac{2}{3} = \frac{x}{27}$

4. $\frac{96}{a} = \frac{16}{7}$

5. $\frac{20}{5} = \frac{16}{n}$

6. $\frac{3}{8} = \frac{y}{56}$

7. $\frac{5}{8} = \frac{15}{w}$

8. $\frac{5}{n} = \frac{6}{24}$

9. $\frac{5}{3} = \frac{25}{a}$

10. $\frac{c}{14} = \frac{6}{42}$

11. $\frac{12}{11} = \frac{n}{33}$

12. $\frac{1}{2} = \frac{49}{d}$

13. $\frac{4}{f} = \frac{20}{30}$

14. $\frac{3}{15} = \frac{9}{45}$

15. $\frac{3}{4} = \frac{36}{n}$

16. $\frac{4}{n} = \frac{80}{100}$

17. $\frac{n}{3} = \frac{24}{36}$

18. $\frac{7}{8} = \frac{42}{n}$

Search : Pythagorean Theorem

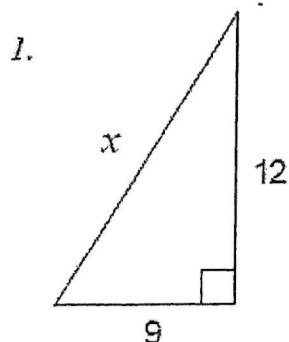
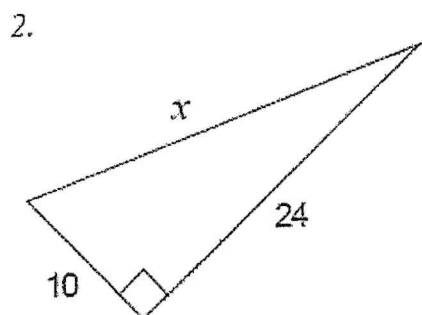
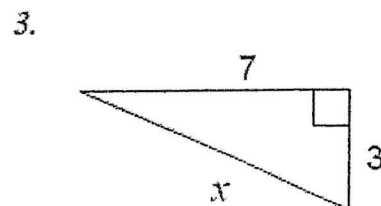
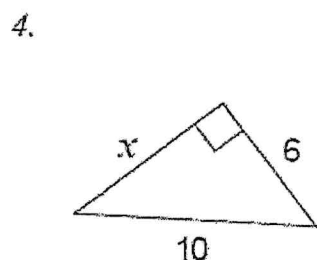
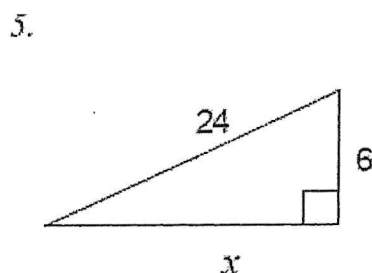
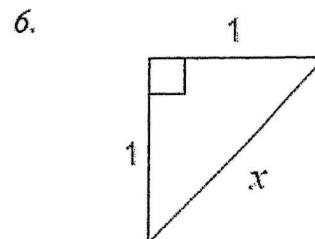
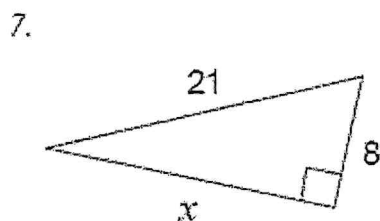
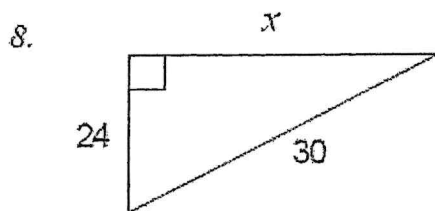
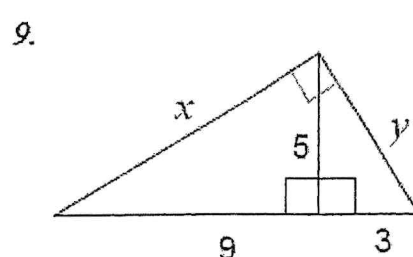
Date: _____ /30 Name: _____

Pythagorean Theorem Assignment

A) Calculate the measure of x in each.

Where necessary, round your answer correct to one decimal place.

Complete on a separate piece of paper.

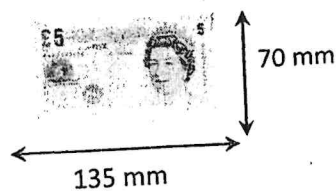


B) A ladder is leaning against the side of a 10m house. If the base of the ladder is 3m away from the house, how tall is the ladder?

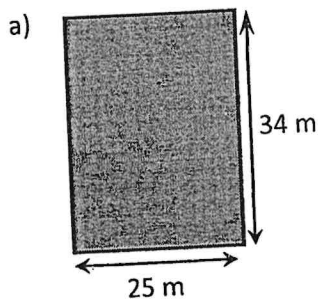
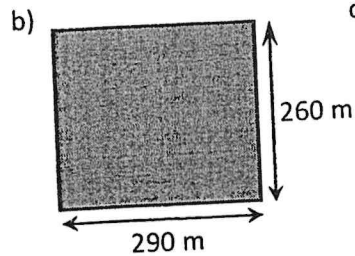
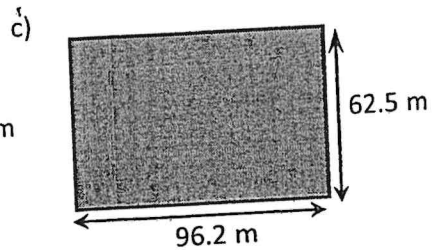
Draw a diagram and show all work.

Search: Perimeter and area of 2-D shapes or composite shapes

3 Find the perimeter and area of this £5 note.



4. Work out the perimeter and area of each field.



5. Find the perimeter and area of each room.

