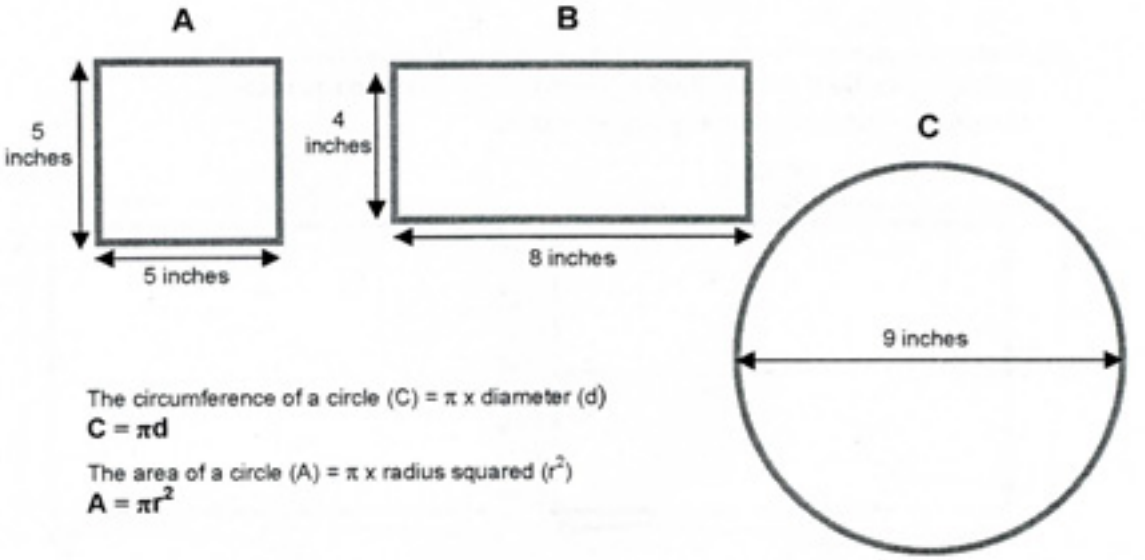
9-5-08
5° Page 1

Pizza Crusts

This problem gives you the chance to:

- find areas and perimeters of rectangular and circular shapes in a practical context

Robbie loves the stuffed crusts on pizzas.
Here are some stuffed crust pizza shapes that are baked.



The circumference of a circle (C) = π x diameter (d)
C = πd

The area of a circle (A) = π x radius squared (r^2)
A = πr^2

1. How many inches of stuffed crust are put around the edge of each of these pizzas?

A 20 ✓ inches B 24 ✓ inches C 28.26 ✓ inches

Show your calculations.

A: ✓
5 x 4 = 20

B:
4 x 2 = 8 ✓
+ +
8 x 2 = 16
24

C: ✓
C = πd π = 3.14
3.14
x 9
28.26

2nd page

2. Here is a square pizza with an area of 36 square inches.

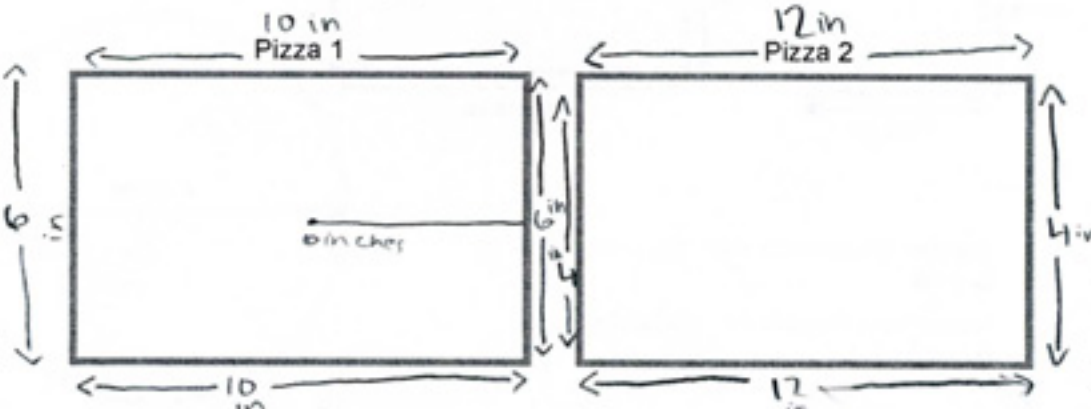
(a) What length of stuffed crust will be around the edge?

9 inches

36 ÷ 9 = 4

4 is the number of sides a square has.

(b) Design two rectangular pizzas, each with an area of 36 square inches, with different perimeters, so that Robbie will have more crust than on the square pizza.
In each case calculate what the perimeter will be.



Perimeter of Pizza 1 37.68 inches

Perimeter of Pizza 2 25.12 inches

C = πd
3.14
12
628
314
37.68

36 / 8 = 4

C = πd
3.14
8
25.12

3. What is the circumference of a round pizza with an area of 36 square inches?

28.26 inches

C = πd
3.14
9
28.26

Explain how you figured this out.

The circumference equals pi times diameter so then 3.14 times the diameter of the 36 square inch pizza is 28.26 inches.

9-5-08 page 1
5°

Pizza Crusts

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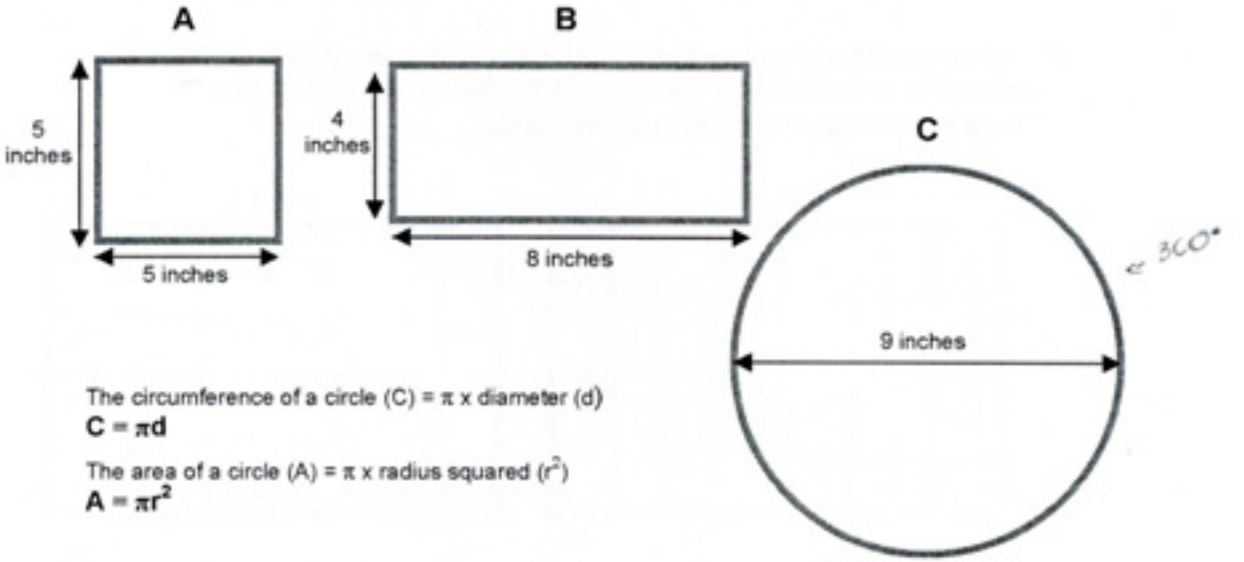


The circumference of a circle (C) = π x diameter (d)
$C = \pi d$

The area of a circle (A) = π x radius squared (r^2)
$A = \pi r^2$

1. How many inches of stuffed crust are put around the edge of each of these pizzas?

A 25 X inches B 24 ✓ inches C 40 X inches 0

Show your calculations.

$5 \cdot 5 = 25$ X

$4 \cdot 2 = 8$
$8 \cdot 2 = 16$ ✓
24

9 | 360
40
36
00
0
0
X

1

0

2. Here is a square pizza with an area of 36 square inches.

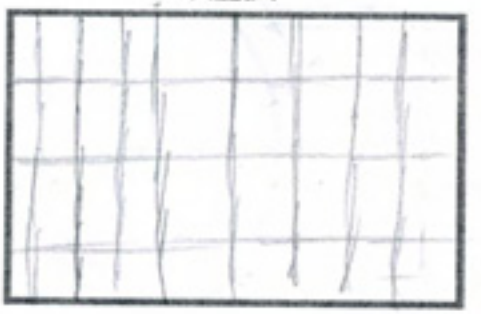
(a) What length of stuffed crust will be around the edge?

6 inches

36 ÷ 6 = 6

(b) Design two rectangular pizzas, each with an area of 36 square inches, with different perimeters, so that Robbie will have more crust than on the square pizza.
In each case calculate what the perimeter will be.

Pizza 1



Pizza 2

Perimeter of Pizza 1 9 inches

Perimeter of Pizza 2 4 inches

3. What is the circumference of a round pizza with an area of 36 square inches?

10 inches

Explain how you figured this out.

360 ÷ 36 = 10 360 is the perimiter and 36 is the area.

16
360
36
00
0

9/5/08 5th period Page 1

Pizza Crusts

This problem gives you the chance to:

- find areas and perimeters of rectangular and circular shapes in a practical context

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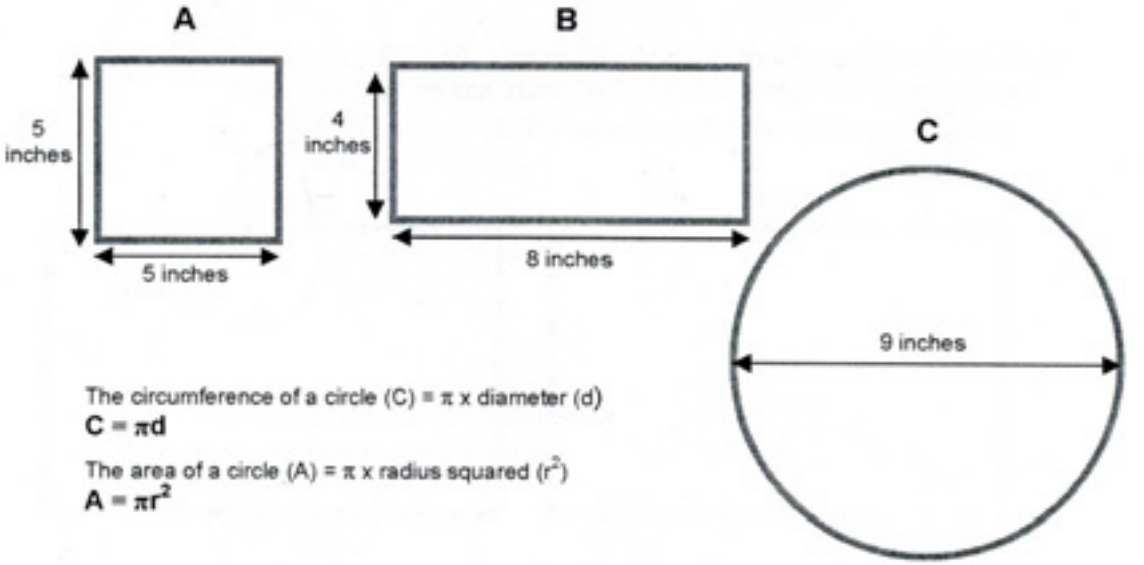
Here are some stuffed crust pizza shapes that are baked.



The circumference of a circle (C) = π x diameter (d)
$C = \pi d$

The area of a circle (A) = π x radius squared (r^2)
$A = \pi r^2$

1. How many inches of stuffed crust are put around the edge of each of these pizzas?

A 20 ✓ inches B 24 ✓ inches C 28 ✓ inches

Show your calculations.

A 5 ×4 = 20 ✓ B 8 ×3 = 24 ✓ C. 3.14 × 9 = 28.26 = 28 ✓

1
1
1

2. Here is a square pizza with an area of 36 square inches.

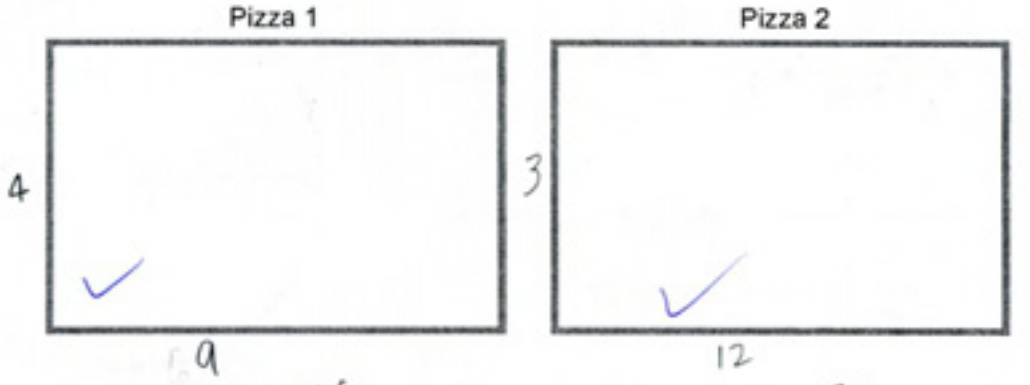
(a) What length of stuffed crust will be around the edge?

6 + 6 + 6 + 6 = 24

24 inches ✓

1

(b) Design two rectangular pizzas, each with an area of 36 square inches, with different perimeters, so that Robbie will have more crust than on the square pizza.
In each case calculate what the perimeter will be.



Perimeter of Pizza 1 26 inches ✗

Perimeter of Pizza 2 30 inches ✗

0

0

3. What is the circumference of a round pizza with an area of 36 square inches?

19 inches ✗

0

Explain how you figured this out.

3.14 × 6 = 18.84 = 19

I figured this by dividing 36 by 6 because 6 is the square root of 36. Then I multiplied it by π and got 18.84. finally I rounded it and got 19. ✗

0

8

9/5/08 B
page 1

Pizza Crusts

This problem gives you the chance to:
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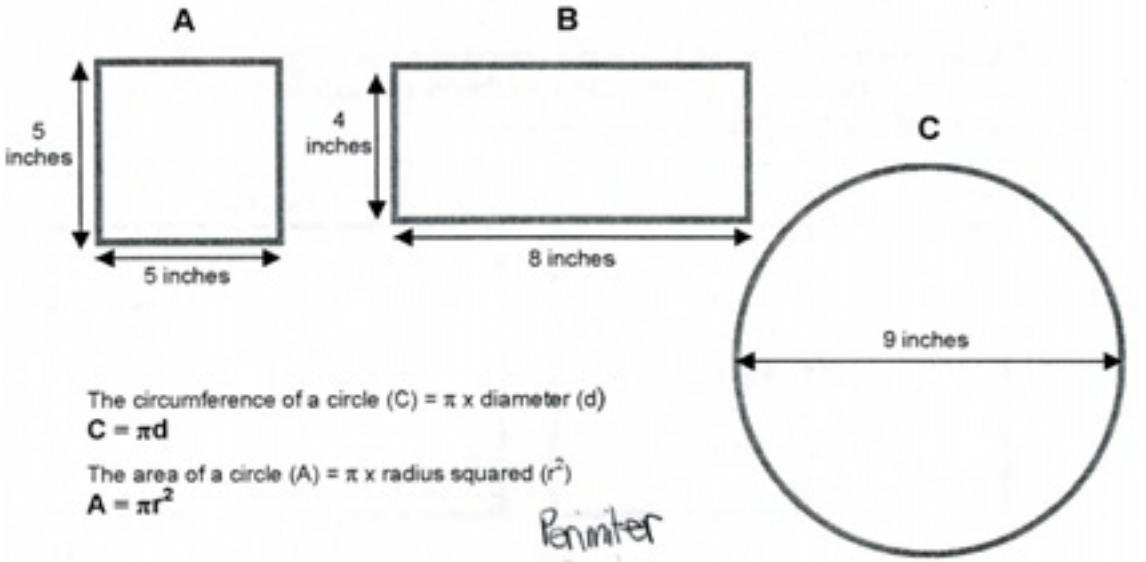
Here are some stuffed crust pizza shapes that are baked.



The circumference of a circle (C) = π x diameter (d)
C = πd

The area of a circle (A) = π x radius squared (r^2)
A = πr^2

Perimeter

1. How many inches of stuffed crust are put around the edge of each of these pizzas?

A 20 ✓ inches B 24 ✓ inches C 28 ✓ inches

Show your calculations.

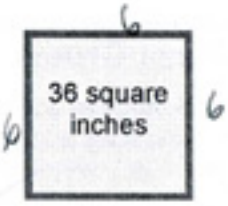
5x4=20 ✓

4x2+8x2
8+16 ✓
24

3.14x9= 28.26 ✓

1
1
1

2. Here is a square pizza with an area of 36 square inches.



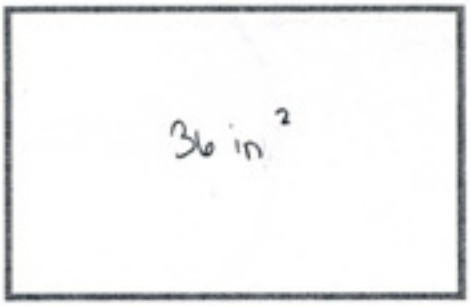
(a) What length of stuffed crust will be around the edge?

24 inches

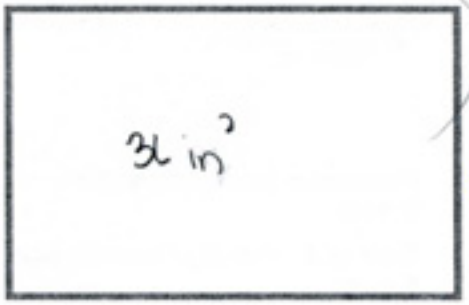
5×5= 25
6×6
6×4=24
6+6+6+6

(b) Design two rectangular pizzas, each with an area of 36 square inches, with different perimeters, so that Robbie will have more crust than on the square pizza.
In each case calculate what the perimeter will be.

Pizza 1



Pizza 2



Perimeter of Pizza 1 24 inches

Perimeter of Pizza 2 40 inches

3. What is the circumference of a round pizza with an area of 36 square inches?

36 inches

Explain how you figured this out.

I figured out the diameter of the circle which is 18. If you divide that to fourths, that equals 9. Then I multiplied 9 by 4 and I got 36.

9/5/08 page 1
Period 5°

Pizza Crusts

This problem gives you the chance to:
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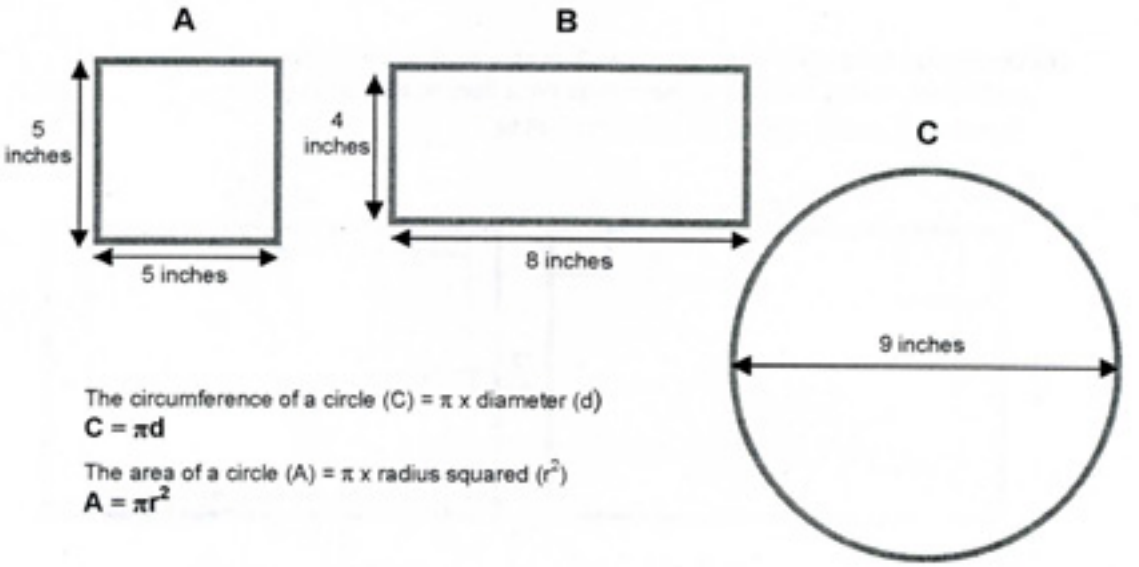
Here are some stuffed crust pizza shapes that are baked.



The circumference of a circle (C) = π x diameter (d)
C = πd

The area of a circle (A) = π x radius squared (r^2)
A = πr^2

1. How many inches of stuffed crust are put around the edge of each of these pizzas?

A 20 ✓ inches B 24 ✓ inches C 36 ✗ inches 1

Show your calculations.

A 5+5+5+5
10+5
15+5
20
✓

B=4+4
8+8
16+8
24
✓

C=9x4
36
✗

1

0

2. Here is a square pizza with an area of 36 square inches.

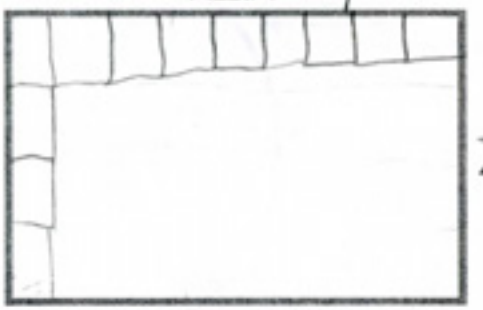
(a) What length of stuffed crust will be around the edge?

$4\overline{)36}$ -36 0

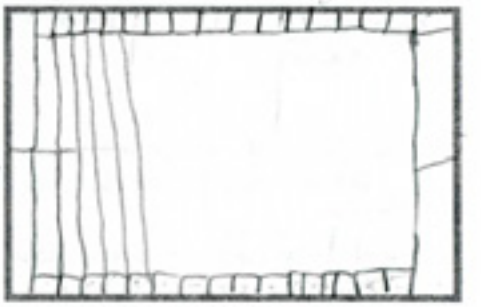
9 inches

(b) Design two rectangular pizzas, each with an area of 36 square inches, with different perimeters, so that Robbie will have more crust than on the square pizza.
In each case calculate what the perimeter will be.

Pizza 1 9



Pizza 2 18



Perimeter of Pizza 1 9 & 4 inches

Perimeter of Pizza 2 18 & 2 inches

$3.14 \times 36 = 1884 + 9420 = 113.04$

3. What is the circumference of a round pizza with an area of 36 square inches?

113.04 inches

Explain how you figured this out.

I multiplied the π (3.14) with the square inches (36) and got 113.04

8

9/5/08 page 1

50

Pizza Crusts

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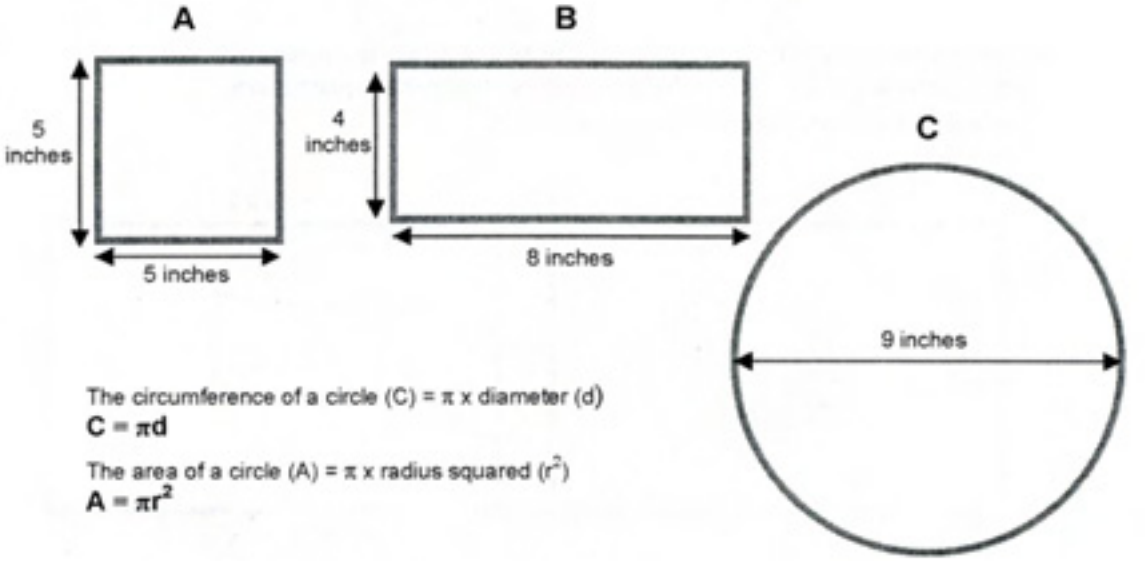


The circumference of a circle (C) = π x diameter (d)
$C = \pi d$

The area of a circle (A) = π x radius squared (r^2)
$A = \pi r^2$

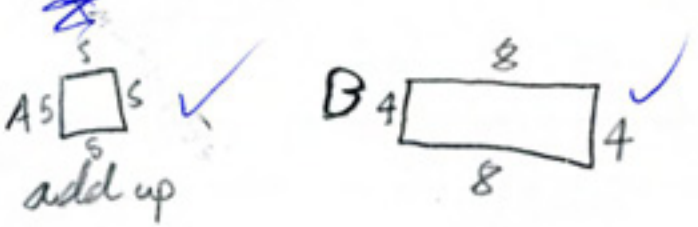
1. How many inches of stuffed crust are put around the edge of each of these pizzas?

A 20 ✓ inches B 24 ✓ inches C 4½ ✗ inches

0 1

Show your calculations.

0 1



✓ ✗ 0

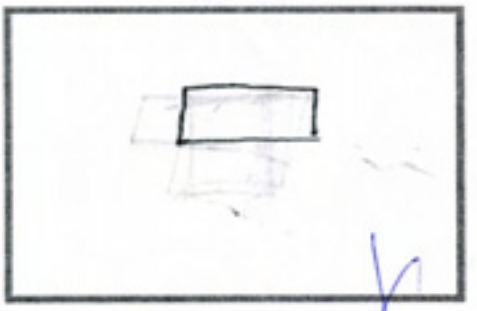
2. Here is a square pizza with an area of 36 square inches.

(a) What length of stuffed crust will be around the edge?

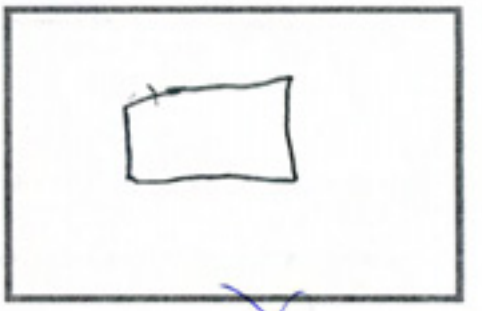
9x4 inches

(b) Design two rectangular pizzas, each with an area of 36 square inches, with different perimeters, so that Robbie will have more crust than on the square pizza.
In each case calculate what the perimeter will be.

Pizza 1



Pizza 2



Perimeter of Pizza 1 _____ inches

Perimeter of Pizza 2 _____ inches

3. What is the circumference of a round pizza with an area of 36 square inches?

_____ inches

Explain how you figured this out.

_____

_____

_____

8

9/5/08 page 1

5°

Pizza Crusts

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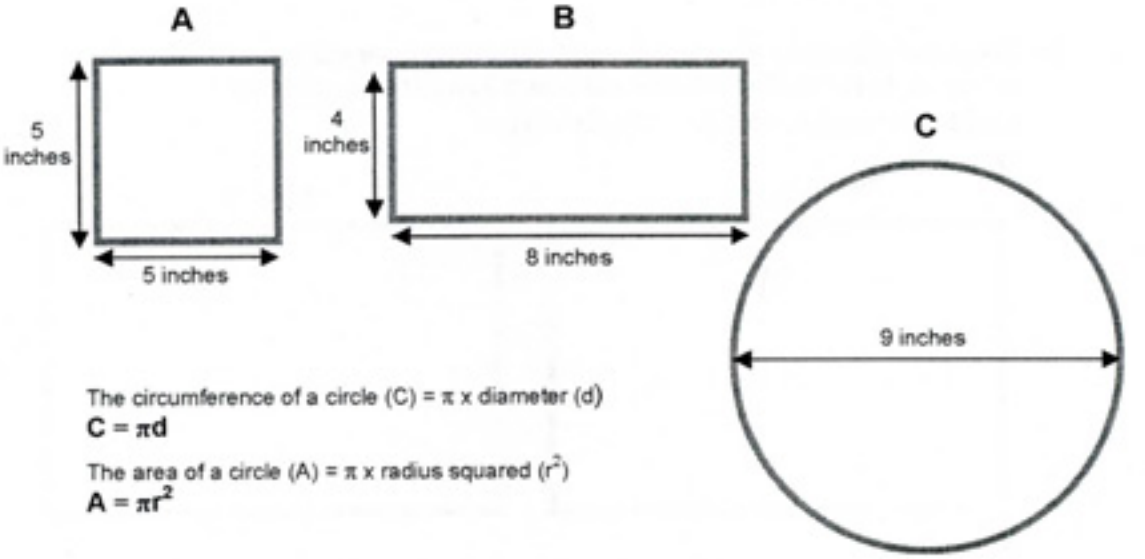

The circumference of a circle (C) = π x diameter (d)
C = πd

The area of a circle (A) = π x radius squared (r^2)
A = πr^2

1. How many inches of stuffed crust are put around the edge of each of these pizzas?

A 10 X inches B 12 inches C 28.26 inches

Show your calculations.

X

1 3
3.14
x 9 ✓
28.26

0

0

1

2. Here is a square pizza with an area of 36 square inches.

(a) What length of stuffed crust will be around the edge?

8 inches

(b) Design two rectangular pizzas, each with an area of 36 square inches, with different perimeters, so that Robbie will have more crust than on the square pizza.
In each case calculate what the perimeter will be.

Pizza 1 9 in

4 in

Pizza 2 2 in

18 in

Perimeter of Pizza 1 13 inches

Perimeter of Pizza 2 20 inches

3. What is the circumference of a round pizza with an area of 36 square inches?

72.1 inches

Explain how you figured this out.

First I divided 36 by π and got 11.5. Then I added 11.5 plus 11.5 and got 23.0. Finally I multipled 23 and π to get my answer.

11.5
× 2
23.0

3.14) 36.00 (11.46

8

3.14
× 23.
942
628
72.22

page 1 5c
9/4/08

Pizza Crusts

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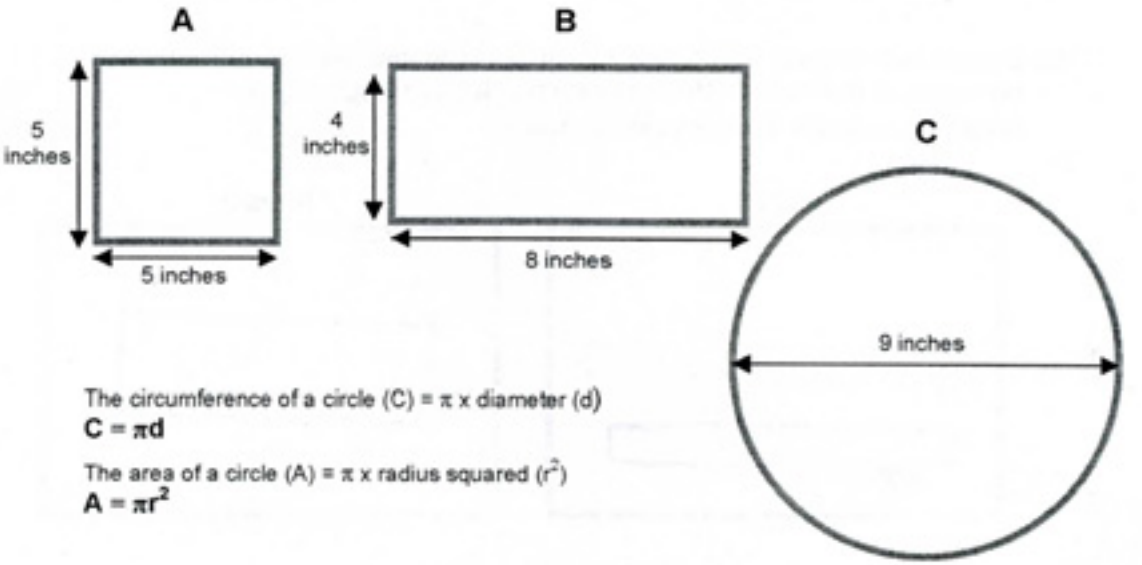


The circumference of a circle (C) = π x diameter (d)
$C = \pi d$

The area of a circle (A) = π x radius squared (r^2)
$A = \pi r^2$

1. How many inches of stuffed crust are put around the edge of each of these pizzas?

A 31.4 inches ✓ X

Show your calculations.

5 5 10 10 ×3.14 40 100 3000 31.40

B 37.68 inches X

8 +4 12 ×3.14 48 120 3600 37.68

C 28.26 inches ✓

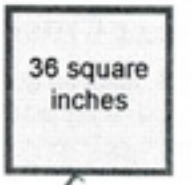
r ×3.14 ✓ 36 190 2800 2826

C 0 1

2. Here is a square pizza with an area of 36 square inches.

(a) What length of stuffed crust will be around the edge?

37.68 inches

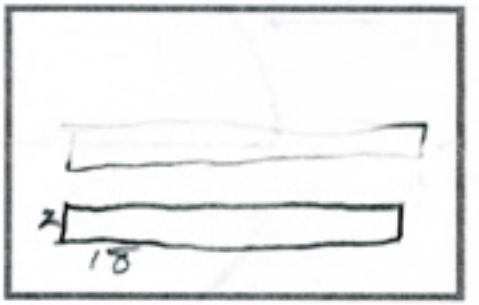


36

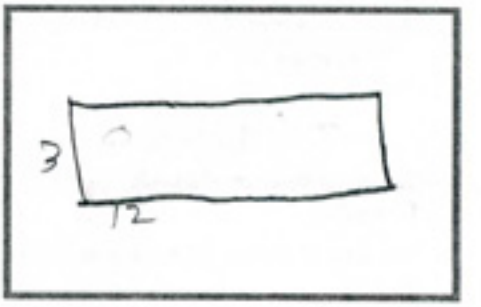
3.14
X 12
628
3140
37.68

(b) Design two rectangular pizzas, each with an area of 36 square inches, with different perimeters, so that Robbie will have more crust than on the square pizza.
In each case calculate what the perimeter will be.

Pizza 1



Pizza 2



Perimeter of Pizza 1 62.80 inches

Perimeter of Pizza 2 47.10 inches

20
X3.14
80
200
6000
6280

31.4
X3.14
160
150
4500
47.10

3. What is the circumference of a round pizza with an area of 36 square inches?

18.84 inches

Explain how you figured this out.

I figured it out by dividing thirty six by six to find the diameter and multiplying that by pie;

0

0

8

9-5-08 5° Page 1

Pizza Crusts

This problem gives you the chance to:

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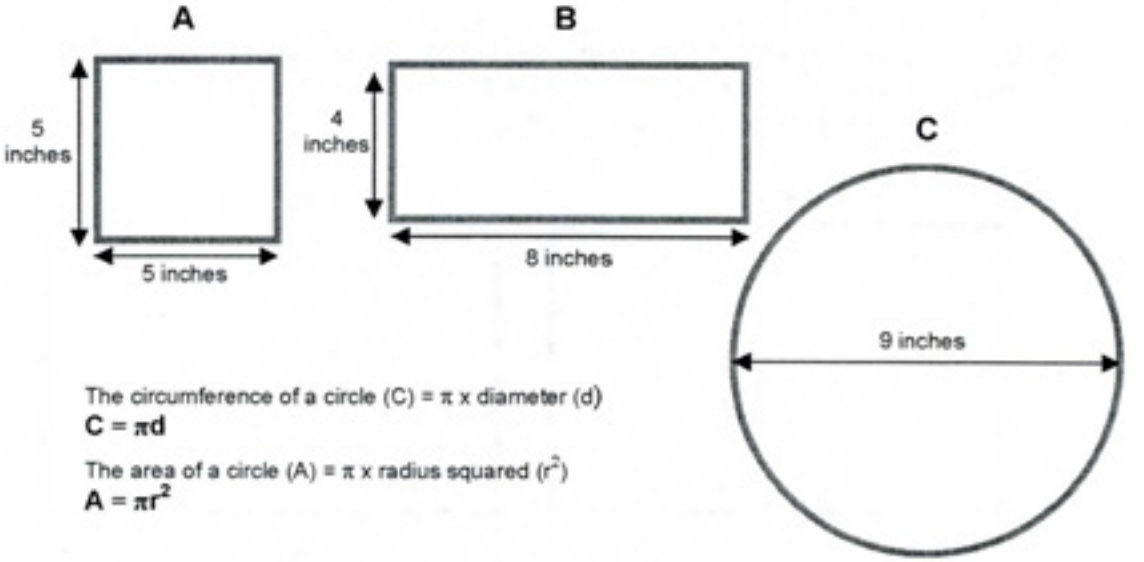
Here are some stuffed crust pizza shapes that are baked.



The circumference of a circle (C) = π x diameter (d)
C = πd

The area of a circle (A) = π x radius squared (r^2)
A = πr^2

1. How many inches of stuffed crust are put around the edge of each of these pizzas?

A 20 ✓ inches B 24 ✓ inches C 18 X inches

Show your calculations.

X

0
0
0

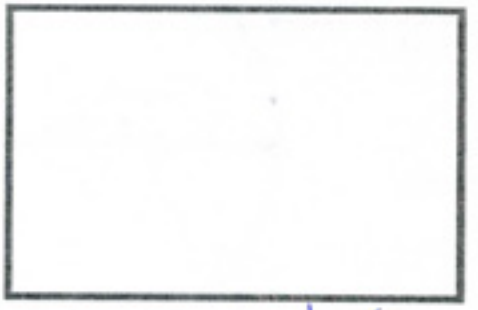
2. Here is a square pizza with an area of 36 square inches.

(a) What length of stuffed crust will be around the edge?

24 inches

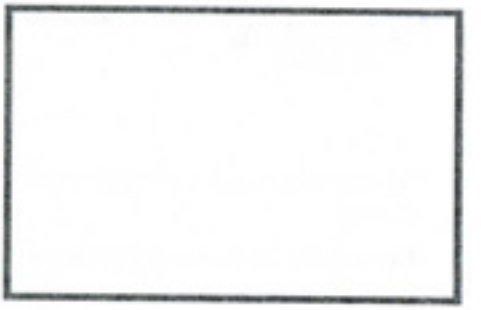
(b) Design two rectangular pizzas, each with an area of 36 square inches, with different perimeters, so that Robbie will have more crust than on the square pizza.
In each case calculate what the perimeter will be.

Pizza 1



Perimeter of Pizza 1 _____ inches

Pizza 2



Perimeter of Pizza 2 _____ inches

3. What is the circumference of a round pizza with an area of 36 square inches?

_____ inches

Explain how you figured this out.

_____

_____

_____

8

Pizza Crusts

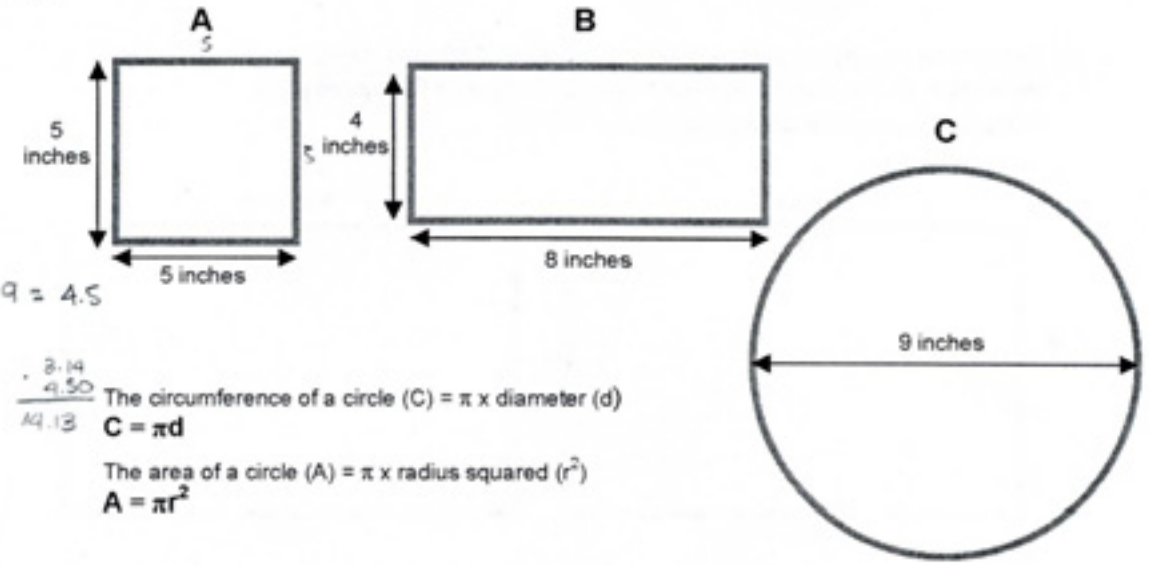
This problem gives you the chance to:

- find areas and perimeters of rectangular and circular shapes in a practical context

Robbie loves the stuffed crusts on pizzas.

Here are some stuffed crust pizza shapes that are baked.

π = 3.14



half of 9 = 4.5

4.5
2 | 9.0
8
1.0
1.0
0

3.14
× 4.50
14.13

The circumference of a circle (C) = π x diameter (d)

$C = \pi d$

The area of a circle (A) = π x radius squared (r^2)

$A = \pi r^2$

1. How many inches of stuffed crust are put around the edge of each of these pizzas?

A 20 ✓ inches B 24 ✓ inches C 9 ✗ inches

Show your calculations.

9·9 = 81 ✗

3.14

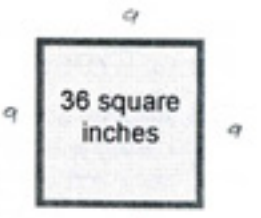
5 × 4 = 20 ✓

8 + 8 = 16
16 + 4 = 20 ✓
20 + 4 = 24

24

1
1
6

2. Here is a square pizza with an area of 36 square inches.



(a) What length of stuffed crust will be around the edge?

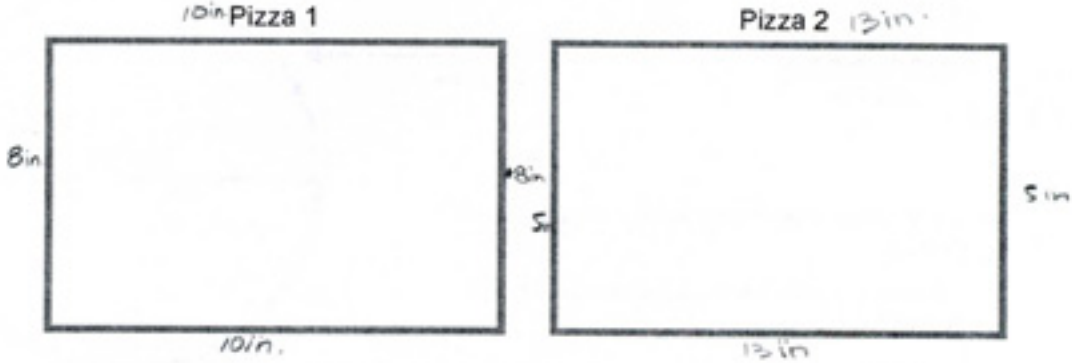
$4\overline{)36}$ 9

9 inches

9+9+9+9 = 36

9 × 4 = 36

(b) Design two rectangular pizzas, each with an area of 36 square inches, with different perimeters, so that Robbie will have more crust than on the square pizza.
In each case calculate what the perimeter will be.



Perimeter of Pizza 1 36/9in 10in inches

Perimeter of Pizza 2 36/13in 5in. inches

3. What is the circumference of a round pizza with an area of 36 square inches?

14.13 inches

Explain how you figured this out.

π · diameter, 3.14·4.5(half of 9) = 14.13, I multiplied pie (3.14) by 4.5(half of 9), and got the answer 14.13

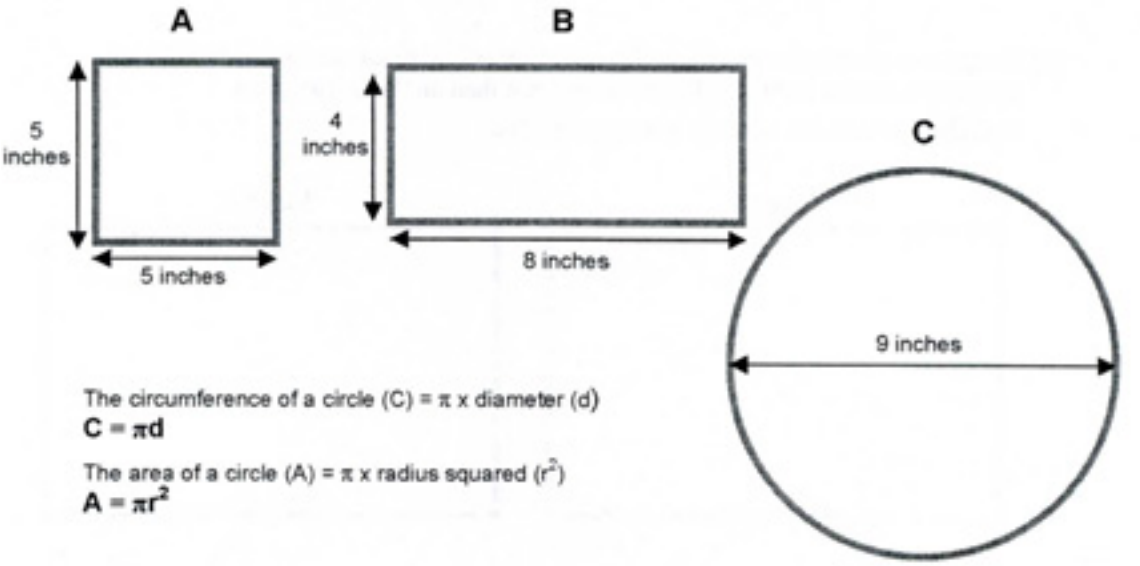
9/5/08
5°
Page 1

Pizza Crusts

This problem gives you the chance to:

- find areas and perimeters of rectangular and circular shapes in a practical context

Robbie loves the stuffed crusts on pizzas.
Here are some stuffed crust pizza shapes that are baked.



The circumference of a circle (C) = π x diameter (d)
C = πd

The area of a circle (A) = π x radius squared (r^2)
A = πr^2

1. How many inches of stuffed crust are put around the edge of each of these pizzas?

A 25 X inches **B** 32 X inches **C** 64 X inches

0

Show your calculations.

X

0

A. 5 in x 5 in = 25 in

B. 4 in x 8 in = 32 in

0

C. 3.14 x 20.25 = 63.585

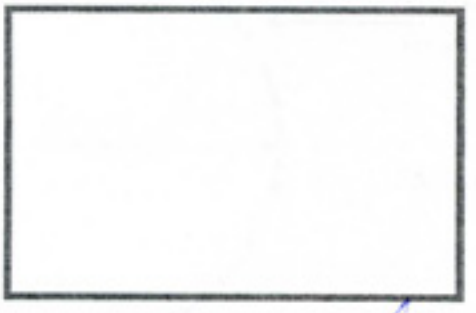
2. Here is a square pizza with an area of 36 square inches.

(a) What length of stuffed crust will be around the edge?

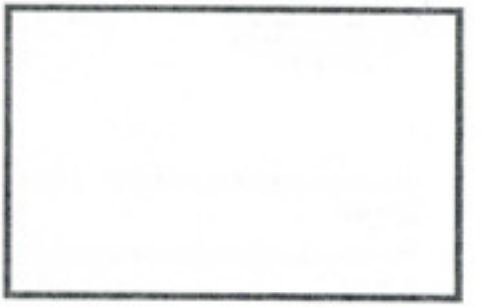
1296 inches

(b) Design two rectangular pizzas, each with an area of 36 square inches, with different perimeters, so that Robbie will have more crust than on the square pizza.
In each case calculate what the perimeter will be.

Pizza 1



Pizza 2



Perimeter of Pizza 1 _____ inches

Perimeter of Pizza 2 _____ inches

3. What is the circumference of a round pizza with an area of 36 square inches?

1017.36 inches

Explain how you figured this out.

I use 324 x 3.14 and it equal to 1017.36.

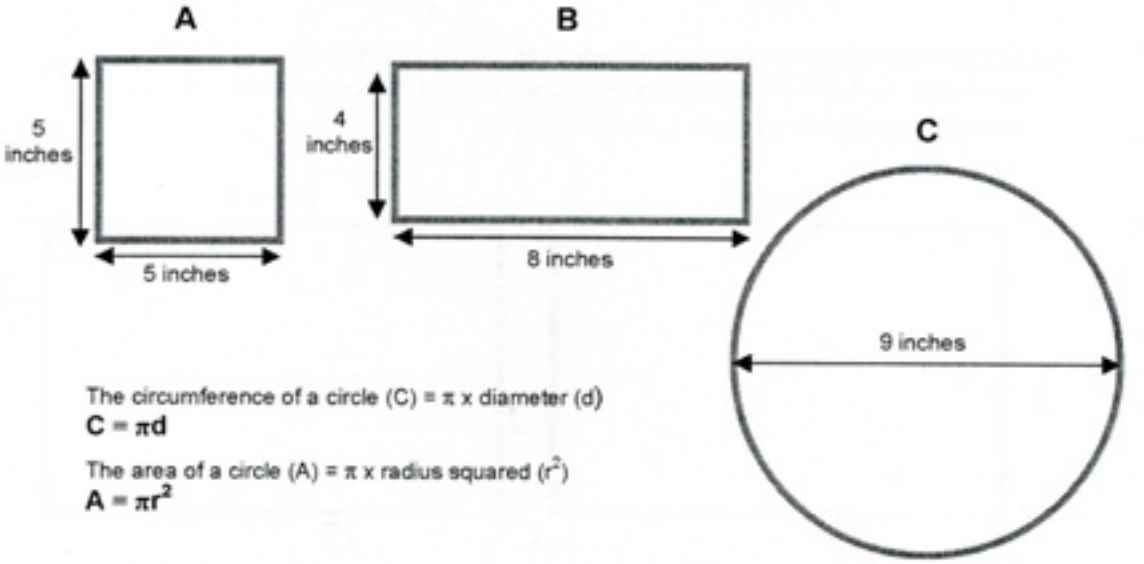
8

 9-5-08
50

Pizza Crusts

This problem gives you the chance to:
- find areas and perimeters of rectangular and circular shapes in a practical context

Robbie loves the stuffed crusts on pizzas.
Here are some stuffed crust pizza shapes that are baked.



The circumference of a circle (C) = π x diameter (d)
$C = \pi d$

The area of a circle (A) = π x radius squared (r^2)
$A = \pi r^2$

1. How many inches of stuffed crust are put around the edge of each of these pizzas?

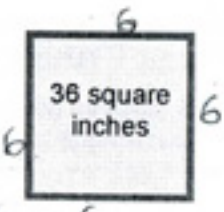
A 20 inches B 24 inches C 28.26 inches

Show your calculations.

$5 \times 4 = 20$ $8 \times 2 = 16$ $4 \times 2 = 8$ $16 + 8 = 24$ $3.14 \times 9 = 28.26$

1 1 1

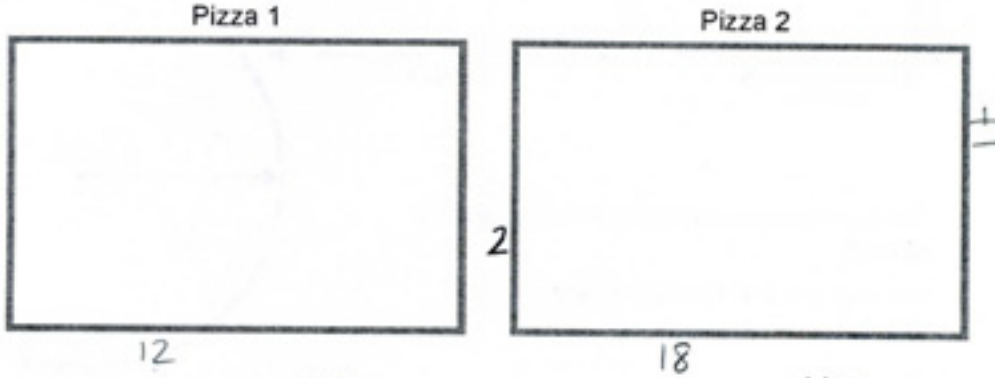
2. Here is a square pizza with an area of 36 square inches.



(a) What length of stuffed crust will be around the edge?

24 inches

(b) Design two rectangular pizzas, each with an area of 36 square inches, with different perimeters, so that Robbie will have more crust than on the square pizza.
In each case calculate what the perimeter will be.



Perimeter of Pizza 1 30 inches

Perimeter of Pizza 2 40 inches

3. What is the circumference of a round pizza with an area of 36 square inches?

18 inches

Explain how you figured this out.

Pizza Crusts

This problem gives you the chance to:
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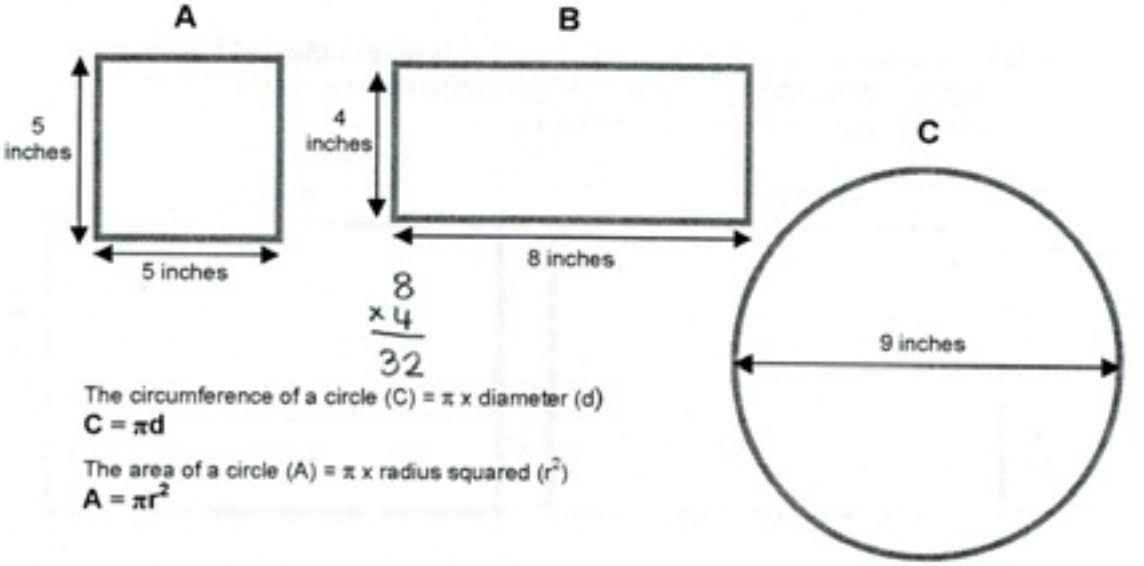


8 × 4 = 32

The circumference of a circle (C) = π x diameter (d)
C = πd

The area of a circle (A) = π x radius squared (r^2)
A = πr^2

1. How many inches of stuffed crust are put around the edge of each of these pizzas?

A 20 ✓ inches B 24 ✓ inches C 9 X inches

Show your calculations.

5x4 ✓ 6x4 X 9x1 X

1
0
0

2. Here is a square pizza with an area of 36 square inches.

(a) What length of stuffed crust will be around the edge?

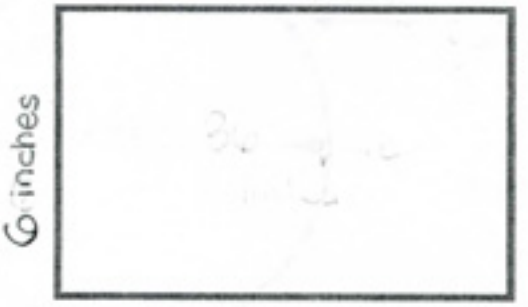
4|36 9

4|36

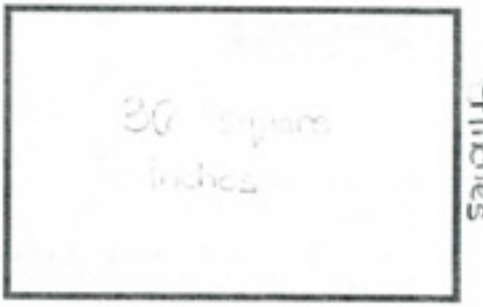
9 inches

(b) Design two rectangular pizzas, each with an area of 36 square inches, with different perimeters, so that Robbie will have more crust than on the square pizza.
In each case calculate what the perimeter will be.

Pizza 1



Pizza 2



Perimeter of Pizza 1 6 inches

Perimeter of Pizza 2 4 inches

3. What is the circumference of a round pizza with an area of 36 square inches?

9 inches

8.28
36|314
288
26

Explain how you figured this out.

I divided 36 and the circumference and I round it off making 9.

8